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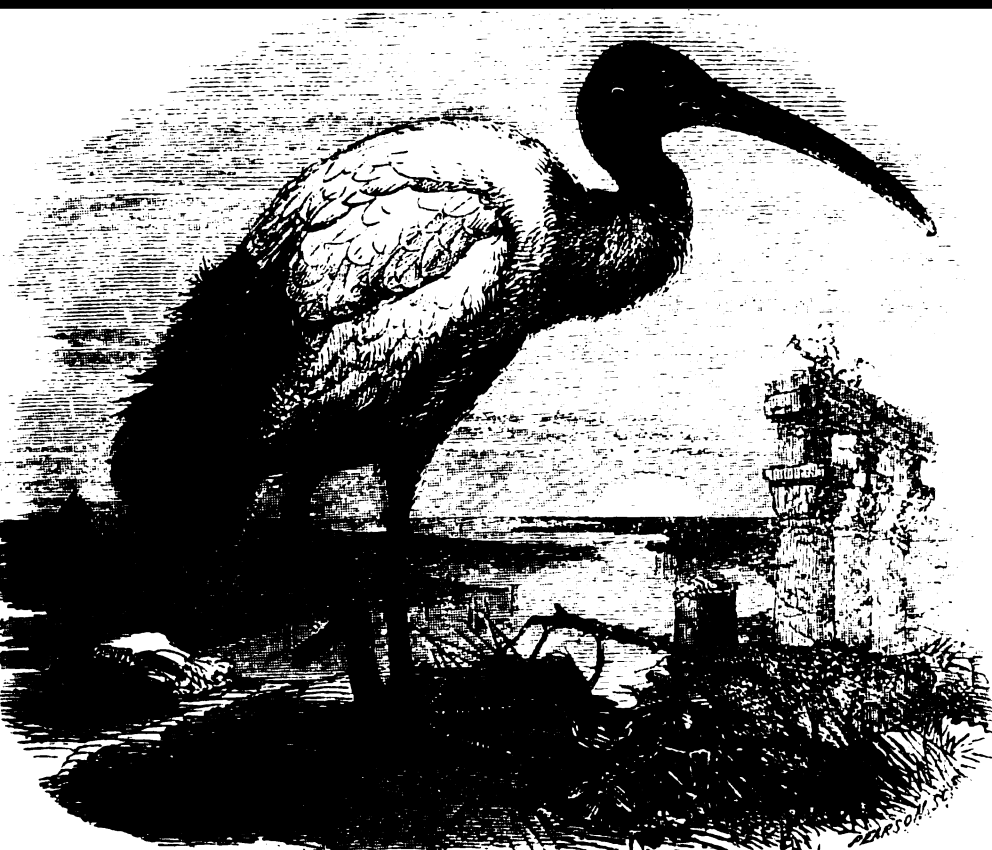
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*Extracts from the Record of
Zoological Literature, Vols. I-VI*

Alfred Newton

a-7

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VOLS. I.—VI.

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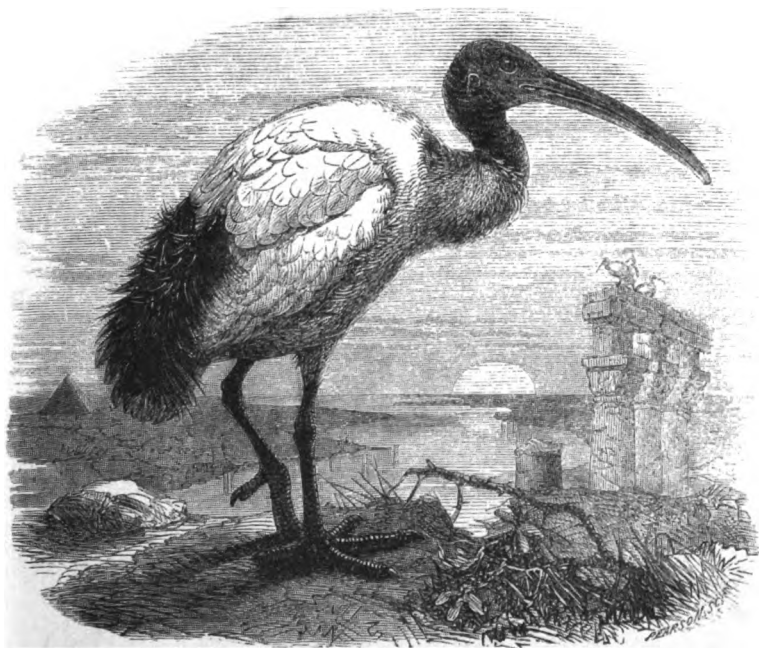
A V E S

FROM 1864 TO 1869.

BY

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M.DCCC.LXX.

31

ERRATA ET CORRIGENDA.

Page Line

VOL. I. (1864-65.)

- 50, 9 } , for Dickinson read Dickerson.
 68, 40 }
 74, 25, for *fluviventris* read *fulviventris*.
 77, 18, for EDOLIDÆ read DICRUIDÆ.
 85, 5, insert full stop after 446, and cancel the rest of the sentence.
 87, 27, for *barbara* read *barbaru*.

VOL. II. (1865-66.)

- 82, 20, after egg insert and fibula.
 104, 10, for *flavirons* read *flavifrons*.
 115, 40, for Mathews read Mathew, and for 9436 read 9456.
 119, 43, for *cernutii* read *cerrutii*.
 125, 10, for 9195 read 91-95.
 134, 20, between this line and the next insert TANTALIDÆ as a new paragraph.

VOL. III. (1866-67.)

- 51, 7, for Beutvögel read Brutvögel.
 52, 37, for D. read F.
 57, 19, before *Sylvidae* insert *Muscicapidae*.
 62, 4, for Those read Three.
 62, 20, for *Pediocetes* read *Pediocætes*.
 62, 24, after 1865 dele 3 vols.
 66, 17 } , for Droute read Dronte.
 67, 1 }
 67, 32, for *Gemitores* read *Gemilores*.
 71, 8, for Beutvögel read Brutvögel.
 71, 35, for This read The.
 72, 16 and 27, after *sulaensis* insert sp. nov.
 73, 7, after p. insert 78.
 73, 33, for 1860 read 1866.
 74, 4, for p. 160 read pp. 158-160.
 74, 6, before Schlegel insert H.
 74, 25, for 92 read 93.
 76, 44, after 1866 insert pp. 142, 143.
 77, 37, for Cf. read C. J.
 77, 48, after p. insert 35.
 79, 42, for RAMPHASTIDÆ read RHAMPHASTIDÆ.
 80, 44, for G. read H.
 82, 8, for *phalenoides* read *phalenoides*.
 82, 42, between this line and the next insert CYPSELIDÆ as a new paragraph.
 89, 44, after this line insert, as a new paragraph, lines 35 and 36 from page 97.
 92, 43, for *auricularis* read *auriculatus*.
 93, 29, after this line insert, as a new paragraph, lines 12-15 from page 96.
 94, 44, after 340 insert ?

Page Line VOL. III.—continued.

- 100, 6, for *A.* read *Æ.*
 104, 18, for some read none.
 108, 5, for Lapommeraje read Lapommeraye.
 109, 1, after 1866 insert pp. 144, 145.
 113, 28, for *jamesonii* read *jamesoni*.

VOL. IV. (1867-68.)

- 46, 44, for *Dinornithis* read *Dinornithes*.
 51, 45, for — read *A.*
 54, 30, for Skogshushallare read Skogshushållare.
 60, 47, for One read Two.
 61, 1, for is read and *Turdidæ* are.
 65, 13, for Navigator's read Navigators'.
 66, 18, after belonging insert 2.
 85, 11, for genera read genus.
 87, 11, for *cattipharus* read *cathpharius*.
 95, 8, between this line and the next insert line 41 from page 98.
 96, 24, dele *EDOLIIDÆ*, and insert the succeeding paragraph on page 97 after line 33.
 111, 30, for *chalybcus* read *chalybeus*.
 112, 17, for *Cyanua* read *Cyanura*.
 114, 40, for smaller read larger.
 114, 41, for depends read is supposed to depend.

VOL. V. (1868-69.)

- 33, 28, for considerable read tolerable.
 33, 39, for found read met with.
 36, 24, for In read It.
 57, 25, for *Tanagridæ* (?) read *Fringillidæ*.
 58, 2, for *ELLIOT* read *ELLIOTT*.
 74, 44 and 45, dele though no mention of the fact is made by the author.
 78, 37, for *puncticollis* read *multistrigatus*.
 85, 17, for Rotegurh read Kotegurh.
 87, 24, insert at the end R. C. Tytler, Proc. As. Soc. 1868, pp. 200, 201.
 90, 44 and 45, for *plumbeus* read *phaniceus*, and for lxiv. read -lxv.
 91, 20, for and read but with.
 92, 29, for *Metaporeia* read *Metaponia*.
 93, 2, for xxi. read xxiv.
 97, 15, for xlii. read lxii.
 104, 32, for is read are.
 106, 36, for Vorpommernem read Vorpommern.
 109, 38, for THOMMASO read TOMMASO.
 112, 25, for Newmann read Newman.

VOL. VI. (1869-70.)

- 67, 26, between this line and the next insert line 16 from page 81.
 93, 2, for *P. longipes* read *Palaeperdix longipes*, and for *P. medius* read *Phasianus medius*.
 94, 46, for Soloman read Solomon.
 97, 14, the sentence should read, feathers black, with a pale v-shaped mark, &c.

AVES

BY

ALFRED NEWTON, M.A., F.L.S., etc.

NO ONE can be more painfully aware of the many imperfections of this compilation than its author is. Yet he trusts that its shortcomings are of such a character as, with the kind assistance of his brother-ornithologists, may be ameliorated in future years; for he believes that much of its incompleteness may reasonably be ascribed to the short period which has elapsed between the commencement and execution of this 'Record'; and he would earnestly request that early notice of all papers relating to Ornithology which may appear during the present year may be sent to him, so as to render his contribution to the next volume of the 'Record' more deserving of the attention of naturalists.

BIBLIOGRAPHY.

HARTLAUB, G. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1863. Archiv für Naturgeschichte, Jahrgang xxx. Band ii. pp. 32. Berlin: 1864.

This, the *Eighteenth* Annual Report on the progress of ornithology which has proceeded from its learned author's pen, fully maintains the excellent qualities he has taught us to expect, as a matter of course, in all he publishes. On the present occasion we are glad to find Dr. Hartlaub strongly protesting against the mania of genus-making now so prevalent; but we regret to say that he is not sanguine of its early cessation. A reaction may take place when each species is put in a genus by itself. But then what is a species? This question is still unanswered. Dr. Hartlaub thinks it is only when we know "everything about every bird," that the discussion of the ideas 'Species,' 'Genus,' and 'System' will come to an end. Till then many an obtrusive "*mihi*" will strut forth with impunity. We trust, however, our author may have taken somewhat too unfavourable a view of the cause which underlies all this genus-making; if not, it is much to the discredit of ornithologists.

We cannot here refrain from stating our great obligations to Dr. Hartlaub's admirable series of "Reports," the main features of which we have not hesitated to copy in our portion of the

present 'Record,' convinced that a better model could not be adopted.

CASSIN, JOHN. *Fasti Ornithologiæ*. No. I.—Philipp Ludwig Statius Müller. *Proc. Acad. Philad.* 1864, pp. 234–257.

The author shows, and (unfortunately for the peace of mind of modern ornithologists) shows correctly, that the names bestowed by P. L. S. Müller must, according to the generally received principles of nomenclature, be adopted. They are those contained in the supplemental volume of his edition of Linnæus's '*Systema Naturæ*,' and having been published in 1776, and being strictly binomial, many of them (about 137) take precedence of those which have been commonly in use. Mr. Cassin prints a list of the names applied by Müller, adding to them those which must now be considered synonyms.

THE GENERAL SUBJECT.

DANA, JAMES A. On parallel relations of the Classes of Vertebrates, and on some characteristics of the Reptilian Birds. *Edinb. New Philos. Journal, New Series*, vol. xix. pp. 75–81. (Reprinted from the *American Journal of Science and Arts*, vol. xxxvi., Nov. 1863.)

By the term "Reptilian" or "Hemitypic" Birds—for which the name "Erpetoids" (*lege* *Herpetoids*) is also proposed—is meant the group to which the species known as *Archæopteryx macrura* belongs. It is inferred that the young of this group were unquestionably unfledged, and quite probable that they were more completely unfledged, or for a longer period, than the young of ordinary birds. Further, that they were unquestionably "*walking chicks*." It is also probable that the *Herpetoids* had some more profound Reptilian characteristic than those already noticed, such as incomplete circulation; and though the heart may have had its four cavities, there may have been a passage permitting the partial admixture of venous and arterial blood, such as exists not only in Crocodiles but in the young bird during an early stage in its development, and that this peculiarity may have continued on through the early part of the life of the chick, or until it was fledged.

FRAUENFELD, G. VON. Ueber Wanderung und Flug der Vögel. *Journ. f. Ornith.* 1864, pp. 101 *bis*–108 *bis* (*potius* pp. 101–108); and *Verh. Zool.-Bot. Gesellsch. Wien*, 1864, pp. 156, 157.

The author sets himself to answer three sets of questions, respecting the direction taken by migrating Swallows, put by Dr. J. de la Harpe. The replies state that these birds in many

cases seem to follow the course of rivers, and especially of the Danube. The author also adds some particulars of observations made by himself on birds of passage in Norway, and on some of the *Procellariide* in the Southern Seas as noticed by Mr. E. L. Layard in the 'Ibis' (1862, p. 97, and 1863, p. 241).

NEWTON, ALFRED. On an Illustration of the Manner in which Birds may occasionally aid in the Dispersion of Seeds. *Ann. and Mag. Nat. Hist.* 3 ser. vol. xiii. pp. 99-101. (Reprinted from *Proc. Zool. Soc.* 1863, p. 127).

The author describes a mass of earth $7\frac{1}{2}$ inches in circumference, and weighing $6\frac{1}{2}$ oz., which had accumulated round the foot of an example of *Caccabis rufa*, and remarks that it was sufficient to hold the germs of a very extensive flora*.

SEGOND, L. A. Application des principes de morphologie à la classification des Oiseaux. *Comptes Rendus de l'Acad. Franç.* August 1, 1864. *Rev. Zool.* 1864, p. 263.

The author states that when search is made into the least variable parts of the Ornithic skeleton for the characters which will best reveal existing affinities among birds, he finds that all the species are derived either directly or by mixture (*par mélange*) from four types, of which the Eagle, the Swan, the Cock, and the Ostrich manifest the most perfect representation. In a former communication made to the Academy, M. Segond had taken the central part only of the vertebral column as a means of determining the methodical distribution of the *Mammalia*. In the class of Birds, on account of the more specialized structure of the skeleton, it is necessary to have recourse to the whole of the trunk.

WALLACE, A. R. Remarks on the Value of Osteological Characters in the Classification of Birds. *Ibis*, 1864, pp. 36-41.

The author shows that the remarks of M. Blanchard (*Ann. des Sc. Natur.* 1859, p. 75) had been anticipated by his own (*Ann. Nat. Hist.* 2 ser. xviii. pp. 193-216), wherein he separated from the true or normal *Passeres* every family which M. Blanchard separated—arriving in fact at nearly the same determination to which Nitzsch and Mr. Eyton, from the consideration of entirely different characters, had previously come. Mr.

* We may perhaps be excused for taking this opportunity of stating that in the autumn of 1863 the specimen mentioned above, and which was then *three years old*, was submitted to Mr. Darwin, who has been so good as to inform us that from the mass of earth 82 seeds germinated, 12 being those of monocotyledonous, and 70 of dicotyledonous plants of at least 5 different species.—A. N.

Wallace will not allow, however, that osteological characters are an all-sufficing guide, believing that the whole structure of a bird and its corresponding habits may be profoundly modified, while its sternum may closely resemble a common form, and *vice versâ*. He is also now quite convinced that the *Psittaci* deserve to rank as a primary division of the class of Birds. After remarking more particularly upon M. Blanchard's determination, from the body of the sternum only, of the affinities of *Merops*, *Tamatia*, the *Picidae*, *Pteroglossus*, *Megalema*, and *Nyctiornis*, he states that the comparison of the entire sternum, with its appendages, and also of the cranium would afford a more satisfactory basis than that proposed by M. Blanchard, and considers that the texture of the plumage, the form and arrangement of the feathers, and many other characters are of almost equal importance.

PALÆARCTIC REGION.

COLLETT, ROBERT. Oversigt af Christiania Omegns ornithologiske Fauna. Christiania: 1864. *Nyt Mag. for Naturvidensk. Physiogr. Forening*, iii. part 3. pp. 231.

Two hundred and thirty species have been noticed as occurring, and 169 as breeding in the district, out of the 244 of which the Norwegian avifauna consists. The paper is not entirely free from errors (*cf.* 'Ibis,' 1865, p. 227); but a good deal of care and labour have obviously been expended upon it, and, as it is nearly twenty years since any publication on the *Ornis* of the district appeared, Mr. Collett's observations are not without their use.

Du Bois, C. F. Planches Coloriées des Oiseaux de l'Europe et de leurs œufs, espèces non observées en Belgique. Bruxelles: 1864.

This work is only known to us from the critical remarks in the 'Ibis' (1864, p. 396). It appears to be supplementary to the author's 'Oiseaux de Belgique,' and its excellence is not very highly spoken of by the reviewer.

FRITSCH, ANTON. Naturgeschichte der Vögel Europas. Heft 9. Prag: 1864. Folio.

Of this work we have only seen some of the earlier parts. We extract the information above given from Zuchold's 'Bibliotheca Historico-Naturalis,' July-December 1864.

GOULD, JOHN. The Birds of Great Britain. Parts v. and vi. London: 1864. Imperial folio.

This grand work, which was begun in 1862, is continued at

the rate of two parts every year. The plates, as regards beauty and finish, far exceed those in any other of the author's well-known publications. The species illustrated will be found noticed under the groups to which they belong. A good deal of care has been bestowed on the letter-press, which is much more comprehensive than in the majority of Mr. Gould's books. Figures of the nestlings of many of the species are also introduced, to an extent greater than in any other work of the kind with which we are acquainted, excepting perhaps Naumann's 'Vögel Deutschlands.'

HINTZ, I. W. Ornithologischer Jahresbericht u.s.w. in der Umgegend von Schlosskämpen bei Cöslin in Pommern. Journ. f. Orn. 1864, pp. 33-52, pp. 105-101 *bis* (*potius* pp. 89-101), pp. 161-194.

This report, extending over the two years 1862 and 1863, contains observations on the arrival and autumnal passage of migratory birds, with remarks on their time of breeding, the whole accompanied by meteorological statistics. The species observed for the first time breeding in the district were *Calamoherpe turdina* in 1862, and in 1863 *Picus minor* and *Edicnemus crepitans*.

HOMER, ALEXANDER VON. Balearen und Algier. Journ. f. Orn. 1864, pp. 321-328.

Additional observations to those recorded in the author's former papers (J. f. O. 1862, pp. 1-23, 241-285, 417-434; 1863, pp. 81-99, 261-269, and Ber. xiv. Versamml. D. O. G. pp. 12-22, 24-28).

MARCHANT, ARMAND. Catalogue des Oiseaux observés dans le département d'Eure-et-Loire. Rev. et Mag. de Zoologie, 1864, pp. 3, 4, 33-36, 378-385.

These are in continuation of a series of articles commenced by the author in the same periodical for 1863 (pp. 177-179, 281-284, 334-336, 361-365). Not much important information is contained in them, but any facts showing the distribution and range of birds in France are not without value.

NEWTON, ALFRED. Notes on the Ornithology of Iceland. Zoologist, pp. 8935-8944. (From Appendix A. to 'Iceland; its Scenes and Sagas. By Sabine Baring-Gould. London: 1863,' pp. 379-421.)

The portion of the paper reprinted consists of general remarks on the character and more prominent features of the Icelandic avifauna, followed by an abstract of the author's list of the species which compose it. Some errors in this last are corrected further on (pp. 8964 and 9038).

Additions to the list are made by the author, 'Ibis,' 1864, pp. 131-133.

NEWTON, ALFRED. Two Days at Madeira. *Zoologist*, pp. 9179-9188. (From the 'Ibis,' 1863, pp. 185-195.)

A few general remarks on the peculiarities of the Madeiran avifauna, and notes of the species observed during the author's short visit to that island.

NEWTON, ALFRED. Notes on the Zoology of Spitsbergen. *Proc. Zool. Soc.* 1864, pp. 494-502.

The author stayed about six weeks in and about Spitsbergen in the summer of 1864, and records a few ornithological facts which he was able to ascertain during that time.

NORDMANN, ARTHUR VON. Uebersicht der bis jetzt in Finnland und Lappland vorgekommenen Vögelarten. *Journ. f. Orn.* 1864, pp. 353-382.

A reprint from the 'Bulletin de l'Académie Impériale des Naturalistes de Moscou' for 1860 (p. 1). Some observations are added by the author's father, Professor Alexander von Nordmann. Two hundred and fifty-three species are enumerated; but one of the most remarkable of the birds of Northern Lapland, *Limicola pygmæa* (*Tringa platyrhyncha*, Temm.), is not included. The interior of Finland seems not yet thoroughly explored. This paper, however, gives by far the most complete list of the avifauna of the country that has hitherto appeared. To it is prefixed a catalogue of former publications on the same subject. (Cf. 'Ibis,' 1861, pp. 109-111.)

PELZELN, A. VON. Ueber die ornithologische Ausbeute von Herrn Zelebor's Reisen in das Banat, die Militair-Grenze und die Dobrudscha. *Journ. f. Orn.* 1864, pp. 69-74.

The booty obtained by Herr Zelebor, though not inconsiderable as to quantity, was of far greater importance in the quality of the specimens, which consisted for the most part of very interesting species. Extracts from Herr Zelebor's letters written from different places in the course of his journey are printed in the Vienna 'Jagd-Zeitung' for 1864, pp. 40-46, 357, 358, and 390-392. (Cf. 'Ibis,' 1865, p. 225.)

SALVADORI, TOMMASO. Catalogo degli Uccelli di Sardegna, con note e osservazioni. Milano: 1864. *Atti della Soc. Ital. di Sc. Nat.* vol. vi. pp. 40-66, 193-228.

Two hundred and sixty-eight species are enumerated as having been found in the island of Sardinia. Of these, two hundred and fifty-one are common to the present work and that of Sig. Cara, though Sig. Salvadori has failed in being able to prove the

existence of fifteen of them. Two more have been mistaken by Sig. Cara, and twelve have been introduced wrongly by him into the Sardinian avifauna, while on the other hand, Sig. Salvadori includes fifteen species which were omitted altogether by his precursor.

SAXBY, HENRY L. Ornithological Notes from Shetland. Zoologist, pp. 9091-9096, 9124-9131, 9230-9243, 9310-9321.

This series of papers contains innumerable observations on the birds of the Shetlands; and, as the author resides upon Unst, the most northern of the British Isles, he is very favourably situated for noticing the occurrence of foreign stragglers and the movements of inhabitants.

SEIDENSACHER, E. Beobachtungen in der Vogelwelt gemacht in der Umgebung von Cilli in Steiermark im Jahre 1863. Verh. Zool. Botan. Gesellsch. Wien, 1864, pp. 85-92.

General observations carefully made, but no great novelty noticed.

SPEERLING, R. M. Some Account of an Ornithologist's Cruise in the Mediterranean. Ibis, 1864, pp. 264-290.

Notes on 113 species are recorded. These have chiefly reference to the migration of birds, the whole paper containing important information on that subject. The fact that most birds cross the Mediterranean at night is especially noted.

STEVENSON, HENRY. A List of the Birds of Norfolk, with remarks on the General Ornithology of the County. Reprinted from White's History and Directory of the County. Sheffield: 1864. (Again reprinted, with alterations, 'Zoologist,' pp. 9025-9036.)

Two hundred and ninety-three species are included. But Norfolk has always had the reputation of being one of the richest ornithological districts in the United Kingdom. The list is little more than a nominal one, abbreviations being appended showing the character in which the birds appear. In the 'Zoologist' reprint, these abbreviations are expanded, and a few other alterations introduced (p. 9103).

SUNDEVALL, CARL J. Svenska Foglarna. Parts XIV. and XV. Stockholm: 1864. Oblong 4to.

These parts consist of Half-sheets 37 to 44 and Plates 53 to 60, both inclusive—the former extending, according to the author's arrangement (*cf.* K. Svensk. Vet.-Akad. Handl. 1843, pp. 378-384), from the end of the *Picidae* to the beginning of the *Accipitres*. This work is an exceedingly good example of what may

be done by a scientific man to adapt his subject to popular taste without making it less precise or wanting in dignity.

TRISTRAM, H. B. Report on the Birds of Palestine. Proc. Zool. Soc. 1864, pp. 426-456.

Three hundred and twenty-two species are enumerated in this most important paper. They are said to be strictly those which came under the personal observation, or are in the collections, of members of the author's exploring party. Of the 322 Palestine species, 230 are land-birds, and 92 water-birds; 96 of the whole are common to China and Palestine, and 260 common to Europe and Palestine; 31 are non-European species common to East Africa, and are chiefly desert-species of Nubia and the Sahara, while 27 are peculiar to Palestine and the districts adjacent,—the whole summary showing that Palestine must be included in the western part of the Palearctic Region. Nine previously undescribed species were met with by Mr. Tristram.

[WHEELWRIGHT, H. W.] A Spring and Summer in Lapland. By an Old Bushman. London: 1864, 12mo.

This is a reprint of a series of articles which appeared in the 'Field' Newspaper for 1863. The author passed the spring and summer of that year in Luleå Lappmark, having his headquarters at Quickjock; and much interesting information concerning the birds of that district is given by him. Mr. Wheelwright is well known to be an observer of great experience and long-proved accuracy.

WRIGHT, C. A. List of Birds observed in the Islands of Malta and Gozo. Ibis, 1864, pp. 42-73, 137-157. Additions to the above, *op. cit.* pp. 291, 292.

Two hundred and fifty-three species are enumerated as having, with a few exceptions, been observed by the author during the last ten or twelve years—thirty more than were noticed in Schembri's Catalogue published in 1843, while four others, erroneously included by as many writers, are omitted. Only ten or twelve species are resident, Malta being merely a resting-place for birds in their periodical passages across the Mediterranean. These generally arrive and leave at night, usually not remaining more than one day. Some species, however, stay a few months, while flocks, chiefly of *Grallæ* and *Anseres*, pass over high in air without alighting. In spring the Quails and most of the short-winged and smaller birds, though not unfrequently arriving in calm weather, generally appear during the prevalence of winds from N.N.W. to S.S.W., and in autumn with those from the S.S.E. to N.N.E., being probably

stopped in their course and driven to seek rest. Two unimportant additions to the number of Maltese species are mentioned by the author in his supplementary paper.

ÆTHIOPIAN REGION.

ADAMS, A. L. Notes and Observations on the Birds of Egypt and Nubia. Ibis, 1864, pp. 1-36, and (Extracts translated by Dr. HARTMANN from the first part only) in Journ. f. Ornith. 1864, pp. 382-393. Erratum noticed, Ibis, 1864, p. 430. See also ALLEN, S. S.

These observations were made on the Nile between Cairo and the Second Cataract, during November, 1862, and the two following months. Only about 105 species were noticed. The author remarks on the excellence of the representation of different birds in the hieroglyphic characters, and on the various species which were embalmed by the ancient Egyptians. In his introduction also he roughly indicates the geographical range of the species met with. The majority of *Grallæ* and *Anatidæ* do not proceed further south than the First Cataract; at the Second Cataract appear the outposts of a new ornithological province; but many common European birds appear to winter higher up the Nile. Dr. Adams also briefly shows the changes in the distribution of species observable when passing from the river to the desert.

ADAMS, A. L. Notes on the Mummied Bodies of the Ibis and other Birds found in Egypt. Edinb. New Philos. Journ., New Series, vol. xix. pp. 173-183.

The author remarks on the discrepancies in the dimensions of various mummied Ibises, which he thinks are not merely sexual differences, but owing to variation induced by long domestication, in which state he imagines the sacred bird to have been kept by the ancient Egyptians. A description of the contents of the gizzards of several specimens follows; and similar observations are made respecting the mummies of three species of *Falconidæ*.

ALLEN, S. S. Remarks on Dr. A. Leith Adams's "Notes and Observations on the Birds of Egypt and Nubia." Ibis, 1864, pp. 233-243.

The author has had more extended opportunities for observation than Dr. Adams, having spent four seasons in Egypt, not merely up the Nile Valley, but also in the Faioum and the Delta; in consequence he is able to extend the list of Egyptian birds not inconsiderably. With an enumeration of these additions,

and short remarks on some of the most interesting of them, the paper is occupied.

ANTINORI, ORAZIO. *Catalogo descrittivo di una Collezione di Uccelli fatta nell' interno dell' Affrica centrale Nord.* Milano: 1864, 8vo, 118 pp.

The author remained at Khartoum from May 1859 to July 1861, making excursions to explore the districts lying between the Blue and White Niles. Nine species of birds are described as new; but the Marquess does not seem to have been so fortunate as to have met with any of the novelties stated to have been discovered by Baron von Heuglin (*cf.* *Ibis*, 1864, pp. 400, 401).

GURNEY, J. H. A List of Birds collected in Damara Land by Mr. C. J. Andersson. *Proc. Zool. Soc.* 1864, pp. 1-8.

Fifty-two species are enumerated, in addition to those contained in the list published by Messrs. Strickland and Sclater in the 'Contributions to Ornithology' for 1852; and notes on twenty-nine of those before known to belong to the avifauna of the country are appended.

GURNEY, J. H. An additional List of British Birds found in South Africa. *Zoologist*, pp. 9247, 9248.

The first list was published in the same magazine for 1863 (p. 8675). Seven additional species are now enumerated.

GURNEY, J. H. A Sixth additional List of Birds from Natal. *Ibis*, 1864, pp. 346-361.

This paper is in continuation of others published by the same author in the '*Ibis*' (1859, p. 234; 1860, p. 203; 1861, p. 128; 1862, pp. 25 and 149; 1863, p. 320), from the collections sent by Mr. Ayres. Thirty species are herein recorded as found for the first time in the colony, of which two, *Calamoherpe gracilirostris* and *Turdus gurneyi*, are described as new by Dr. Hartlaub. The latter is figured (pl. ix.). Notes on fourteen other species previously included in this series of articles are also added.

HARTMANN, R. Ornithologische Reiseskizzen aus Nord-Ost Africa. *Journ. f. Orn.* 1864, pp. 143-160, pp. 225-239.

A continuation of a series of articles in the preceding volume of the same periodical (*J. f. O.* 1863, pp. 229-240, 299-320, and 461-474), by the author, who landed at Cairo in November 1859, and in January proceeded up the Nile, returning thither in the following (as we suppose) October. The two concluding papers noticed above are chiefly devoted to observations on the ornithology of Sennaar, but no striking novelty seems to be recorded.

HEUGLIN, T. VON. Ornithologische Miscellen aus Central-Africa. Journ. f. Orn. 1864, pp. 241-276.

This long paper is full of a variety of information concerning the ornithology of the Djour country, lying, we believe, south of the Bahr-el-Gazal; and a good many species are described in it by the author as new, some absolutely, others provisionally, while particulars of several more supposed to have been previously discovered by him are also given. The majority of these perhaps will eventually prove to have been before made known by other explorers; for the author's long absence in Africa has hindered him from becoming aware of the labours of other naturalists, and his acquaintance with their works, as was some years ago remarked by Dr. Hartlaub (Bericht u. s. w. der Vögel, 1856, p. 38), is limited.

HEUGLIN, T. VON. Ueber Alcedinen und Meropiden Nordost-Afrika's. Journ. f. Orn. 1864, pp. 329-336.

Twelve species of the former and ten of the latter are enumerated, and notes respecting them subjoined. None of them are described as new.

KIRK, JOHN. On the Birds of the Zambesi Region of Eastern Tropical Africa. Ibis, 1864, pp. 307-339.

One hundred and fifty species are enumerated, and interesting notes on nearly all of them are appended, making this paper a most instructive one on the ornithology of the little-known region explored by the author.

SCLATER, P. L. On the Birds collected by Captain J. H. Speke during the East African Expedition. Proc. Zool. Soc. 1864, pp. 106-115.

About 70 specimens, representing 62 species, were brought home by Captain Speke; and the collection is of value as being from a country of which we have previously had no ornithological knowledge whatever, though it is hardly extensive enough to allow of deductions from it as to the general character of the avifauna of the region between Bogamogo opposite Zanzibar and Gondokoro on the Nile where it was formed. Five new species seem to have been discovered by Captain Speke, four of which have been already described by Dr. Hartlaub (P. Z. S. 1863, pp. 105, 106), viz. *Bradyornis spekii*, *Dryoscopus funebris*, *D. hamatus*, and *Vidua eques*. The fifth is now described by Dr. Sclater as *Psolidoprocne albiceps* (p. 108) and figured (pl. xiv.). The greater part of the species are such as have been already noticed as East-African, a few more Southern forms are intermixed. Captain Speke has added such notes as he was able concerning each. Obs. The so-called "*Cosmetornis spekii*" figured in Captain Speke's 'Discovery of the Sources of the Nile' 1864. [VOL. I.]

Nile,' p. 462, is stated by Dr. Sclater to be only the previously known *C. vexillarius*.

SCLATER, P. L. On the Birds of the Comoro Islands. *Ibis*, 1864, pp. 292-301.

The flora of the Comoros is, with only one exception, Madagascarian, and the fauna partakes of the same character. Nearly the whole of the birds are similarly identical with Madagascar species. The author's notes are compiled from the information of Drs. Kirk and Dickinson, and the birds collected by the last-named gentleman were submitted to Dr. Sclater's examination. Only 23 species are enumerated; among them is the rare *Accipiter francesi*, of which a figure (plate vii.) is given, and the new *Nectarinia (Cinnyris) comorensis* discovered by Dr. Peters (J. f. O., 1864, p. 161). The sacred bird (reputed to be wingless) of the lake Zalanga on Joanna proved to be a *Podiceps*, but the species was not ascertained.

SCLATER, P. L. On the Rapacious Birds collected by the late Dr. Dickinson in the Zambesi Region. *Ibis*, 1864, pp. 301-307.

This paper contains various notes on twenty-two species, and is illustrated by figures (plate viii.) of *Falco (Dissodectes) dickinsoni*, so named from its lamented discoverer, who was Surgeon to the Oxford and Cambridge Mission.

INDIAN REGION.

GOULD, JOHN. The Birds of Asia. Part xvi. London: 1864. Imp. folio.

This part of the 'Birds of Asia' contains figures and descriptions of sixteen species which were discovered by Mr. Swinhoe in the Island of Formosa, and described by Mr. Gould in the Proceedings of the Zoological Society (1862, pp. 280-286).

JERDON, T. C. The Birds of India; being a Natural History of all the Birds known to inhabit Continental India, &c. Vol. iii. (or Vol. ii. pt. ii.). Calcutta: 1864. Royal 8vo, pp. 441-876.

This third and concluding volume of Dr. Jerdon's laborious work contains an account of the species of *Columba*, *Gallina*, *Gralla*, and *Anseres* which are found in India proper, amounting to 238 in number, and swelling the whole avifauna of the country to 1008 species. Throughout this long series the author has shown unremitting care in adducing all the information that can possibly throw light on his subject; and the result is that one of the most valuable works which has ever appeared is placed before the student of ornithology, who,

whether a beginner or an accomplished naturalist, cannot fail to find these volumes indispensable to him. The great defect of the 'Birds of India' is that its author has unfortunately given way to the practice of excessively multiplying genera, a practice which seems (if only as a mere matter of convenience) deserving of the strongest reprobation. It is due to Dr. Jerdon, however, to say that none of the genera adopted in this work are now invented by him.

PELZELN, A. VON. Einige Worte über eine von Herrn Robert Swinhoe eingesendete Sammlung von Vögeln aus China und Formosa. Verh. Zool.-Botan. Gesellsch. Wien, 1864, pp. 10, 11.

The author takes occasion to point out the great services which Mr. Swinhoe has rendered to Zoology.

SCHOMBURGK, ROBERT H. Cursory Notes on some of the Birds of Siam. Ibis, 1864, pp. 246-268.

A nominal list of the birds collected by the author was drawn up by Mr. Gould and published in the 'Proceedings of the Zoological Society' (1859, p. 151). These notes refer to forty species, a few of which were not included therein. Specimens of the subjects of them were sent to Dr. Sclater, who has added the scientific name where Sir Robert has not himself inserted it. None of the species are new. The extraordinary abundance of Waders and Sea-birds met with on ascending the Menam river is especially noted.

SHORTT, JOHN. Account of a Heronry and Breeding-place of other Water-birds in Southern India. Proc. Linn. Soc. viii. p. 94.

The locality described is about fifty miles from Madras, and twelve from Chingleput. About eight species of the families *Ciconiidae*, *Tantalidae*, *Ardeidae* and *Pelecanidae* were found breeding there, some of them in very large numbers. Some of them were not very accurately identified by the author (*cf.* Ibis, 1865, p. 221).

SWINHOE, ROBERT. Amendments to the Catalogue of the Birds of China (P. Z. S. 1863, p. 259). Proc. Zool. Soc. 1864, pp. 271-272.

Eurinatorhynchus pygmaeus was inserted by mistake for *Limicola pygmaea* (i. e. *Tringa platyrhyncha*, Temm.); and *Larus niveus*, Pallas, is distinct from *L. canus* var. *major*, Middendorff, and is to be included, though doubtfully, in the list as a separate species, "from Kamtschatka and the Northern Seas."

SWINHOE, ROBERT. Descriptions of four new species of For-

mosan Birds; with further Notes on the Ornithology of the Island. *Ibis*, 1864, pp. 361-370.

The new species are *Kittacincla* (lege *Cittacincla*) *auricularis*, *Myiomela montium*, *Cyornis vivida*, and *Turdus albiceps*. The remainder of the paper is chiefly occupied by minute descriptions of *Platalea*.

SWINHOE, ROBERT. Letter concerning Indian Ornithology. *Ibis*, 1864, pp. 414-422.

Contains observations on several birds observed near Bombay, during the author's stay there on his return to China.

TICKELL, S. R. On the Hornbills of India and Burmah. *Ibis*, 1864, pp. 173-182.

AUSTRALIAN REGION.

BERNSTEIN, H. A. Voorloopige mededeelingen nopens Reizen in den Molukschen Archipel. *Nederlandsch Tijdschrift voor de Dierkunde*, 1864, pp. 329-375.

This paper contains an account of the author's travels from November 1860 to October 1863, in which are included very many zoological observations, chiefly on the birds of the Moluccas and the neighbouring islands.

BULLER, WALTER. Notice of the Remains of the Moa and other Birds formerly inhabiting New Zealand. *Zoologist*, pp. 9197-9200.

The author considers the extinction of all the species of *Dinornis* a settled question, but quotes some evidence to prove that large birds of the genera *Palapteryx*, "*Brachypteryx*"* (Owen, nec Horsfield)), and *Aptornis* still inhabit the unfrequented part of the interior. The evidence adduced is entirely second or even third hand, but it may be quite true for all that.

* The earliest mention of a genus *Brachypteryx* of the family *Rallidae*, that we have been able to find, is by Prof. Owen in *Proc. Zool. Soc.* 1848, p. 2. This name was previously (in 1816) applied by Horsfield to a genus of *Formicariidae*, and of course cannot be used in any other sense. We are indebted to Mr. G. R. Gray for the information, derived from Prof. Owen himself, that the description of the so-called "*Brachypteryx australis*" (evidently the bird referred to by Prof. Owen in the passage just mentioned, and also by Mr. Buller in the paper quoted in our text) appeared in the *Osteological Catalogue of the Museum of the Royal College of Surgeons* in 1853 (vol. i. p. 238, no. 1280). This "*Brachypteryx*" differs from *Ocydromus* in having 21 (instead of 22) vertebræ and 9 (instead of 10) pairs of ribs. "These differences are regarded by Prof. Owen as 'at most only specific.' Otherwise the description of *Brachypteryx australis* and the skeleton of *Ocydromus australis* agree."

HARTLAUB, G. Provisional List of a Collection of Birds lately made in the Feejee Islands. *Ibis*, 1864, p. 232.

Thirty-seven species are enumerated, of which some few are not identified.

ROSENBERG, G. VON. Beitrag zur Ornithologie von Neu-Guinea. *Journ. f. Ornith.* 1864, pp. 111 *bis* (*potius* 111)–138. (Translated by Dr. von MARTENS from the “*Natuurkundig Tijdschrift voor nederlandsch Indie*, Jahrg. 1863.”)

The author accompanied an expedition of the Dutch Government to explore the south-west and north-east coasts of New Guinea in 1858. The article contains a list of all the species of birds hitherto known to him to belong to that country, including the neighbouring islands of Jobie, Waigiu, Mysol, and Aru, all of which, excepting the first and last named, he has himself visited. The account of the birds inhabiting the south coast of New Guinea was furnished to him by Captain Dumoulin, that of those of the Aru Islands by Mr. Wallace. The Ké Islands and New Ireland are excluded, the first because they do not belong to the New Guinea group in a physical aspect, the second because the author had not sufficient *data* to go upon. Three hundred and two species are enumerated, of which the following are described as new discoveries of the author:—*Charmosyna pectoralis*, *Chalcopsitta leucopygialis*, *Lorius speciosus*, *Calao papuensis*, *Mahurus sericyaneus* and *Casuaris kaupi*. Some of these under other names have probably been included in Mr. Wallace's or Mr. George Gray's writings (*cf.* ‘*Ibis*,’ 1863, p. 104), but the last was first made known by Herr von Rosenberg more than four years ago (*J. f. O.* 1861, p. 44. pl. i. figs. 12, 13).

SCLATER, P. L. List of a Collection of Birds from Huaheine, Society's Islands. *Proc. Zool. Soc.* 1864, pp. 8–11.

The collection was sent to Mr. J. H. Gurney by Mr. J. H. Wodehouse, and contains ten species, to the enumeration of which some notes are added by the collector.

WALLACE, A. R. On the Parrots of the Malayan Region, with Remarks on their Habits, Distribution and Affinities, and the Description of two New Species. *Proc. Zool. Soc.* 1864, pp. 272–295 (with a Map).

Parrots abound in all tropical countries, but, except in Australia and New Zealand, rarely extend into the temperate zone. The Indian and Æthiopian regions are poor in Parrots, while the Australian is the richest, containing many Genera and even whole Families peculiar to it. The author believes that in this region the Parrot-type originated, and endeavours to ascertain what portion of it was their birth-place. The region may be

divided into three sub-regions, (1) Australia, (2) the Pacific Islands, and (3) the Austro-Malayan Islands, which comprehend Celebes, the Moluccas, and New Guinea. This last sub-region is shown to be much the richest in Families, Genera, and Species, and Mr. Wallace therefore concludes that it consists of a portion of that country to which the *Psittaci* were once restricted.

The most highly organized group is the *Trichoglosside*, in which the whole structure is adapted to flower-feeding habits. These birds are spread over the entire Australian region, to which they are strictly confined, but they are especially abundant and varied in the Austro-Malayan islands, where four out of the six genera are exclusively found. Three of them form the group *Lorinae*, in which the normal green ground-colour of the *Psittaci* is replaced by bright crimson. The Lories are found only in a very limited tract, which curiously enough is coincident with the range of the remarkable genus of true *Psittacide*, *Eclectus*, having a somewhat similar style of coloration. This tract comprises New Guinea, and the islands directly east and west of it from the Moluccas to the Solomon Islands, the products of all of which are so closely allied, as to suggest the idea that they are the fragments of a once continuous land. This small district is extremely rich in Parrots; no less than fifty-four species and fifteen genera inhabit it, and eight of the genera are peculiar to it. But yet New Guinea itself, undoubtedly the richest portion of this tract, is unexplored, so that we can only be supposed to know its *Ornis* in part. For these and some other reasons the author believes that New Guinea is the still existing portion of what was once the great tropical Pacific continent, and that "in the crimson Lories, the black *Microglossum*, the Birds of Paradise, and the great Crowned Pigeons, we have but a remnant and a sample of the strange and beautiful forms of life that once inhabited it, and many of which may still remain to be discovered in the untrodden Papuan forests."

The remaining four of the different families into which Mr. Wallace divides the *Psittaci*—*Ptyctolophide*, *Platycercide*, *Strigopide* and *Psittacide*—are next passed in review and their geographical distribution indicated. The curious connexion between Celebes and the Philippines, as shown by the strange genus *Prioniturus*, as well as by other birds and a few mammals and insects, is noticed, and the excessive poverty of the western part of the archipelago is pointed out as strongly confirming the division of the Australian and Indian regions before made by the author (*Ibis*, 1859, pp. 449-454).

Mr. Wallace considers the *Psittaci* as one of the primary divisions or orders in the class *Aves*, and cites in support of this view reasons drawn from their many and striking peculiarities of structure, habits, and distribution. This valuable paper is

concluded with a synonymic list (containing the descriptions of two new species), and a table showing their geographical distribution.

NEARCTIC REGION.

BAIRD, S. F. Review of American Birds in the Museum of the Smithsonian Institution. Part I. North and Middle America. Washington: 1864. Royal 8vo, pp. 1-176.

This work is a catalogue of the birds of Northern and Middle America, with such critical notices of them as appear to be called for, and a list of specimens selected to show the geographical distribution of the species. The words "North America" are used to mean all the region north of a line drawn from the mouth of the Rio Grande to that of the Yaqui, including Greenland. "Middle America" extends from the same line southward to the continental part of South America, including the Isthmus of Panama, and the whole of the West-Indian Islands except Trinidad, and perhaps Tobago.

It therefore follows from Prof. Baird's definition that this work treats of many species which properly belong to our next division.

LORD, J. K. List of Birds collected and presented by the British North American Boundary Commission to the Royal Artillery Institution. Proc. Roy. Artill. Instit. 1864, pp. 110-126.

This collection consists of eighty-seven species, and short notices respecting them are given by the author, who accompanied the Commission above-named as naturalist. The localities whence the specimens were procured are fully given, and the paper is of some value in determining the geographical distribution of birds in North-western North America.

"**SAMUELS, E. A.** A descriptive Catalogue of the Birds of Massachusetts. Boston: 1864." *

SCLATER, P. L. List of a Collection of Birds procured by Mr. G. H. White in the vicinity of the City of Mexico. Proc. Zool. Soc. 1864, pp. 172-179.

The first collection of birds from this locality that had come under the author's notice. It contains specimens of 156 species, amongst which are several additions to the Mexican avifauna, but none seem to be new to science.

* We have been unable to procure a copy of this publication, and only quote its title from the 'Journal für Ornithologie' (1864, p. 400).

NEOTROPICAL REGION.

CASSIN, JOHN. Notes on some species of Birds from South America. Proc. Acad. Philad. 1864, pp. 286-288, pls. 1-4.

This paper relates to two species of *Calliste* (one of them new), an *Orthonyx*, a *Pittasoma*, two species of *Monasa*, and a *Capito*.

LAWRENCE, G. N. Catalogue of Birds collected at the Island of Sombbrero, W. I., with observations by A. A. JULIEN. Ann. Lyc. Nat. Hist. New York. viii, pp. 93-107.

Thirty-three species are enumerated, of which twelve only are land-birds. Two or perhaps three of these were undescribed: *Vireosylvia atripennis* (Proc. Acad. Philad. 1863, p. 106), another *Vireosylvia* allied to *V. altiloqua*, for which the name *virginalis* is suggested (if it proves to be distinct), and *Coccyzus julieni*. Prior to 1856 very large numbers of sea-birds used to breed on this little island, but since the occupation of it by the United States it is believed that not a single young one has been hatched. In 1863, only about two dozen eggs were found instead of the thousands of previous years.

MARCH, W. T. Notes on the Birds of Jamaica, with remarks by S. F. BAIRD. Proc. Acad. Philad. 1864, pp. 62-72.

This is one of a series of papers published by the authors in the same Journal (1863, pp. 151-154, and 283-305), and refers to the families termed *Ardeide*, *Tantalide*, *Charadriide*, *Hematopodide*, *Recurvirostride*, *Scolopacide*, *Rallide*, *Colymbide*, and *Anatide*. About seventy-five species are here treated of. Many of the statements contained in this paper are of striking novelty, and it would be satisfactory to have some of them confirmed.

SALVIN, OSBERT. A Fortnight amongst the Sea-birds of British Honduras. Ibis, 1864, pp. 372-387.

An excellent account of the populous breeding-places of *Sterna* on the Belize Coast—*Anous stolidus*, *A. tenuirostris*, *Haliplana fuliginosa* and *H. panaya* being the chief.

SALVIN, OSBERT. Descriptions of Seventeen New Species of Birds from Costa Rica. Proc. Zool. Soc. 1864, pp. 579-586.

The author is acquainted with about 304 species from this country, no less than about sixty-five of which have been described by various authors as new, and these have not been found beyond the limits of Costa Rica, or the adjoining province of Veragua. *Carpodectes*, a new genus of *Cotingide*, is defined, and a figure of the type species, *C. nitidus*, given. Two new species of Humming-birds of the genus *Oreopyra*—hitherto represented

by a single species and a unique specimen—are also described, and a fourth species, previously known as *Anthocephala castaneiventris*, is referred to the same genus.

SALVIN, OSBERT, and SCLATER, P. L. (See SCLATER, P. L., and SALVIN, OSBERT.)

SCLATER, P. L. On some Additions to the List of the Birds of the Falkland Islands. Proc. Zool. Soc. 1864, p. 73.

Two species, obtained by Capt. Packe, are added to the list previously drawn up by Dr. Sclater (P. Z. S. 1860, p. 382). These are *Egretta leuce* and *Prion turtur*. The author adds, from the 'Ibis' (1861, p. 312), rectifications of the names of two others, viz. *Nycticorax obscurus* for *N. gardeni*, and *Larus glaucoctis* for *L. roseiventris*.

SCLATER, P. L., and SALVIN, OSBERT. Notes on a Collection of Birds from the Isthmus of Panama. Proc. Zool. Soc. 1864, pp. 342–373, pl. xxx.

Two hundred and seventy-two species are included in this list, to which is prefixed a concise notice of previous papers treating of the same subject. The collection was formed by Mr. M'Leannan, and observations are added by Mr. Salvin, who, in March and April 1863, spent some weeks at Panama and on the line of railway thence to Colon. Three hundred and eighty-nine species are at present known to inhabit this section of the isthmus, which seems, ornithologically speaking, more nearly allied to the lowlands of the northern portion of New Granada and Western Ecuador than to the country immediately to the north of it. Four new species are described, namely, *Cassidix microrhynchus*, *Myrmeciza immaculata*, *Camptostoma flaviventris*, and *Conurus ocellatus*, while of all those enumerated a very full synonymy is given, correcting a great many former errors. One species, *Eucometis cassini*, is figured. This very important paper is so replete with information, that, though well deserving minute analysis, it is hardly possible within our limited space to do justice to its multitudinous details.

SCLATER, P. L. Descriptions of Seven New Species of Birds discovered by the late Dr. John Natterer in Brazil. Proc. Zool. Soc. 1864, pp. 605–611, pls. xxxvii.–xxxix.

The results of Natterer's discoveries in Brazil have hitherto been only partially known. By permission of the authorities of the Vienna Museum, Dr. Sclater has been able to acquire some of the duplicate specimens collected by that naturalist, and among them were the new species described in this paper. Herr von Pelzel also supplied the author with extracts from Natterer's MS. journal, which add to the value of the examples to which they refer.

TAYLOR, E. C. Five Months in the West Indies. *Ibis*, 1864, pp. 73-17, 157-173.

The first of these two articles is devoted to Trinidad and Venezuela, where the author stayed about three months, in the beginning of the year 1863, during which time he made two excursions on the mainland of South America, one up the Orinoco to Angostura, the other along the coast to La Guayra and thence to Caracas. About 141 species are enumerated as noticed in these localities; one of them is described (by Dr. Sclater) as new, under the name of *Tyrannus rostratus*. The second article contains an account of the birds observed in Martinique, Dominica, and Porto Rico, at each of which islands the author passed a fortnight. The *Trochilidae* of the two former are identical; but it is much to be regretted that he has not kept the lists of the three islands, so far apart as they are situated, separate. Each of them has a distinct species of *Certhiola*; that from Dominica is described as *C. dominicana*. The *Phonipara* of Porto Rico is identified with *P. omissa*—that of the more windward islands. This is a singular case of distribution, as the Jamaican species has hitherto been taken as identical with that of the Virgin group (*cf.* *Ibis*, 1864, p. 405). A new species of *Pitangus* from Porto Rico is characterized (by Dr. Sclater) as *P. taylori*.

DESCRIPTIVE ANATOMY.

BOULTON, W. W. Sternum of Little Crane shot in Cambridge-shire. *Zoologist*, pp. 9285-9289.

The sternal apparatus of *Crex minuta* is described, and compared with that of *C. pratensis* and *Gallinula chloropus*.

CRISP, E. On the Visceral Anatomy of the Screamer (*Chauna chavaria*)*. *Proc. Zool. Soc.* 1864, pp. 14-16.

Two examples, which had died in the Society's Gardens, were examined. Dr. Crisp sums up his observations as follows:—

"The important peculiarities of this bird are the great lightness of the skeleton, the presence of air under the skin, the great length of the rectum, and the extent of the mucous folds, the large calibre of the appendices, and the very slight connexion between the hepatic lobes." The author does not state if he has arrived at any conclusion respecting the systematic place of this bird.

FATIO, VICTOR. Note sur une particularité de l'appareil reproducteur mâle chez l'*Accentor alpinus*. *Rev. et Mag. de Zool.* 1864, pp. 65-67.

* i. e. *Chauna nigricollis*, Sclater, *P. Z. S.* 1864, p. 74.

The author states that in the male of this species, at the approach of the breeding-season, when the genital organs become exceedingly enlarged, the *vasa deferentia* are contorted into two clusters, which hang down at either side of the *anus* in two pouches formed by the skin of the bird, and supported by the *os pubis*. In the autumn this seasonal exaggeration entirely disappears.

OWEN, R. On the Skeleton of *Alca impennis*. Proc. Zool. Soc. 1864, p. 258.

Professor Owen's observations were founded on a specimen sent from Funk Island to Mr. A. Newton, by the Bishop of Newfoundland (P. Z. S. 1863, p. 435); and the memoir will be published in the 'Zoological Transactions.'

PARKER, W. K. On the Osteology of Gallinaceous Birds and Tinamous. Trans. Zool. Soc. vol. v. part 3. pp. 149-241. pls. xxxiv.-xlii.

The object of this paper is to throw light on the affinities of the *Gallinæ*, both among themselves and in relation to the surrounding groups. The chief difficulty lies with the *Pteroclidæ*, *Hemipodius*, and the *Tinamidæ*. First of all the author dismisses the *Columbæ*, which must be made to stand by themselves, and then the *Tinamidæ*, in which exist "no very nascent Plover qualities." Of those that are left he considers that in the *Megapodidæ* "the Rasorial qualifications reach their highest point," and that this might be called the ultratypical group. The *Tetraonidæ* differ from the *Phasianidæ* just as Ducks differ from Geese. *Crax* is a true and normal link between the *Phasianidæ* and *Palamedeidæ*. *Talegalla* and the other *Megapodidæ* are not only related to *Crax* and *Palamedea*, but also to *Ocydromus* and *Rhinochetus*. The *Turnicidæ* and *Pteroclidæ* he regards as inosculant groups, the first connecting the true *Gallinæ* by means of *Coturnix* with *Tinamus*, *Ægialites*, and *Chamapelia* (the author does not appear to have compared *Turnix* with *Crex*), the second passing from the *Tetraonidæ* to the *Charadriidæ* and *Columbæ*. *Tinamus*, according to Mr. Parker's views, is essentially Struthious, though in its structure closely related to *Dendrortyx*; and in arriving at this result he seems chiefly influenced by the character of the *os quadratum*, which, he says, "is thoroughly Reptilian in the Tinamou as in the Ostriches."

PARKER, W. K. On the Osteology of the Kagu (*Rhinochetus jubatus*). Proc. Zool. Soc. 1864, pp. 70-72.

To Mr. Parker *Rhinochetus* seems to connect *Eurypyga* and *Psophia*, but whether it be most of a *Grus*, a *Nycticorax*, or an *Ocydromus*, he will not say; it also has a more distant relation-

ship with *Ædicnemus*. The sternum of *Rhinochetus* is truest to the embryo *Grus*, its furculum is but little stronger "than that of the *Brachypteryx*" (quære *Ocydromus*?).

The present paper is but an abstract (nearly all details being omitted) of one which will appear in the 'Zoological Transactions.'

PARKER, W. K. On the Sternal Apparatus of Birds and other Vertebrata. Proc. Zool. Soc. 1864, pp. 339-341.

The author's remarks are in defence of the terminology used by Geoffroy St.-Hilaire, and in opposition to that of Prof. Owen. The term "clavicle" is stated to have been "loosely and incorrectly applied to a part of the thoracic apparatus which is well developed in Frogs and Lizards, but continues rudimentary in Birds."

PTERYLOGRAPHY.

HOLLAND, TH. Pterologische Untersuchungen. Journ. f. Orn. 1864, pp. 194-217.

The author commences by defining the terms he employs, which differ slightly from those made use of by Nitzsch, and proceeds to describe the structure of the quill and accessory plume in the different kinds of feathers. He then treats of the asserted existence of true hair upon birds, which he maintains to be a mistake. The barbs are either flat or rounded, the latter always the case in down. They are also sometimes twisted. The development of the feather, which varies in different birds, is next considered, and the author investigates its formation from the sheath, comparing the views entertained on this point by various authors. He then proceeds to inquire into the mode in which the colouring matter is secreted, concluding that the sheath deposits the pigmentary corpuscles in the same sequence and colours as they are afterwards distributed on the mature feather. He afterwards examines the much controverted question as to the supposed change of colour in a matured feather, and declares that an old feather cannot grow any more, and especially no change of matter can take place in it. Finally Dr. Holland expresses his opinion as to the only conditions under which a bird's plumage can be altered, in terms identical with those enunciated by Herr Eugen von Homeyer (J. f. O. 1864, pp. 108-111).

HOMeyer, EUGEN F. VON. Beitrag zur Mauser einiger Wasservögel. Journ. f. Orn. 1864, pp. 108 bis-111 bis (potius pp. 108-111).

Alca torda and *Anas clangula* are the species noticed in this communication, which is in continuation of a series of articles by

the same author in the same journal (J. f. O. 1855, pp. 113–117 ; 1856, pp. 129–132 *inter alia*). Herr von Homeyer quotes, and agrees to, the following results—at which, from a consideration of principles formerly announced by him, Herr T. Holland has also arrived :—

“A bird can only change its plumage,

“1. By the growth of new feathers in place of the old shed ones.

“2. By the growing-forth of entirely new feathers.

“3. By the loss of certain parts of the feather in a mechanical manner.

“4. By the chemical influence of light and the atmosphere on the pigment of the feathers (and possibly by the operation also of external colouring agents).

“5. By the union of two or more of these processes.”

NEOSSOLOGY.*

BLASIUS, J. H. Zur Unterscheidung des Dunenkleides der Raubvögel. Journ. f. Orn., 1864, pp. 276–289.

The author treats in considerable detail of the differences observable in the young of the *Accipitres*, when clad in down, grouping them for this purpose conveniently (but, of course, arbitrarily) according to characters drawn from the legs and feet—whether covered entirely or in part with feathers, with scales, or with reticulated skin. He remarks on the very different colouring which the young of *Buteo vulgaris* present, even from the earliest age. There are (1) those with pure white down. These grow up into the pale examples with white undersurfaces, whose feathers never have a cross marking, and their under tail-coverts and bellies only a single shaft-streak, their breasts being thinly and their backs thickly spotted. (2) Those with uniform ashy-grey down, having constantly a pure white spot on the hind-head. From these originate the dark specimens which in mature plumage always have cross bars on the feathers of the underside, especially on the flanks and thighs. (3) Those with light whitish-grey bodies and pale, almost white, heads, with a white longitudinal streak on the hind-head. These vary much in the intensity of their colouring, and when mature show a corresponding inconstancy, fluctuating between the two extremes. The paper contains remarks on most of the European species of *Falconidæ* and several of the *Strigidæ*.

* The attention of many ornithologists having been of late more than ever turned to the study of birds at their very earliest age, we have thought it might be convenient for such persons to place together the notices of those publications which treat of this branch of study. This being the case, we trust the necessity of inventing a new term will be admitted.

ELLIOT, DANIEL GIRAUD. A Monograph of the *Tetraoninae*, &c. New York: 1864.

Part I. of this work contains figures of the newly hatched young of *Pediceetes columbianus*, and Part II. those of *Canace canadensis* and *Lagopus scoticus*.

GOULD, JOHN. The Birds of Great Britain. London: 1864.

Part V. includes representations of the very young state of *Syrnium aluco*, *Recurvirostra avocetta*, *Otis tarda*, *Loxia curvirostra*, and *Charadrius pluvialis*. In Part VI. are included those of *Botaurus stellaris*, *Lagopus mutus*, and *Porzana maruetta*.

MARCHAND, A. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1864.

In continuation of the series of illustrations announced in the same journal for the preceding year (pp. 97-99), and containing figures of the newly-hatched young of *Recurvirostra avocetta*, *Phalaropus hyperboreus*, *Tetrao lagopus*, *Alca torda*, *Hæmatopus ostralegus*, *Anas penelope*, *Buteo vulgaris*, and *Fuligula ferina*; the following are represented in a volume for 1864:

Podiceps minor,	pl. 1.	Charadrius pluvialis,	pl. 7.	Strix noctua,	pl. 24.
Scelopax gallinago,	" 2.	Falco subbuteo,	" 8.	Astur palumbarius,	" 25.
Anas acuta,	" 3.	Neophron percno-		Fuligula glacialis,	" 26.
Gallinula porzana,	" 4.	pterus,	" 23.		

No letter-press accompanies these illustrations.

MEVES, W. Poussins décrits. Rev. et Mag. de Zool. 1864, pp. 98-117. Translated from Cefvers. K. Vetensk. Acad. Förhändl. 1860, p. 187, by M. ALPHONSE GAILLARD.

Descriptions are given of the chicks of twenty-five species, belonging to the orders *Accipitres*, *Gallinae*, *Grallae*, and *Anseres*. They were among the results of Herr Meves's journey to Jemtland some years since. The following is a list of the species described, the author's names being retained:—

Astur nisus.	Lagopus alpinus.	Anas boschas.
Buteo vulgaris.	Charadrius apricarius.	" penelope.
" lagopus.	Numenius phaeopus.	Fuligula fusca.
Circus cyaneus.	Totanus hypoleucus.	" nigra.
Strix aluco.	Scelopax rusticola.	" clangula.
Tetrao bonasia.	Larus canus.	Mergus serrator.
" urogallus.	" fuscus.	Colymbus arcticus.
" tetrix.	Anser segetum.	" septentrionalis.
Lagopus subalpinus.		

OOLOGY.

ALTUM, B. Die Eier von *Buteo vulgaris*. Journ. f. Orn. 1864, pp. 23-32.

This paper is in continuation of two others which appeared in

the same periodical for the preceding year (pp. 339 and 435), in which the author treated of the-colouring, size, and relative form, maintaining that the views of Prof. Blasius (Bericht der XIII. Versammlung der D. O. G. p. 46), as to the impossibility of distinguishing between eggs of *Buteo vulgaris*, *Milvus iclinus* and *M. ater*, were erroneous. The subject of the present article is the grain of the shell. Dr. Altum, from the examination of a large series, defines fourteen different kinds of granulation observable in the eggs of *B. vulgaris*; that which he considers most usual, and calls "Bussardkorn," is when "the otherwise smooth shell appears undulating," and in accordance with these definitions he minutely describes the specimens composing sixty layings. He concludes by stating, also at some length, the results at which he has arrived.

ALTUM, B. Die spirale Anlage in der Zeichnung vieler Vogeleier. Journ. f. Orn. 1864, pp. 103-105 (*potius*, pp. 87-89).

The author says the spiral disposition of marking is found only in eggs of the Buzzard, most of the waders, and many of the swimming-birds. The twist is always to the right hand. A left-handed spiral is unknown to him, and such an exception would be as great a rarity as a similar deviation from the normal type in a snail-shell.

BEAVAN, R. C. Specimens of Birds' Eggs collected in the neighbourhood of Barrackpore. Proc. Zool. Soc. 1864, pp. 375-377.

Twenty-four species are enumerated, and a description of the eggs is included in Dr. Jerdon's 'Birds of India.'

BLACKMORE, H. P. Remains of Birds' Eggs found at Fiskerton near Salisbury. Edinb. New Philos. Journ. 1864, vol. xix. N. S. pp. 74, 75.

Fragments of two eggs were found in brick-earth, one about 14 feet, the other about 20 feet below the surface, which had never been disturbed. They are supposed by the author to belong to *Anser ferus* and *Anas boschas*; with the first egg were bones corresponding with those of the species to which the eggs are assigned.

COCHRANE, J. H. Note on the Nesting of the Lanner Falcon (*Falco lanarius*, Schlegel). Ibis, 1864, pp. 183, 184. Errata noticed *op. cit.* pp. 429, 430.

Two eggs are figured (plate iv.), one that of *F. lanarius*; the other, as subsequently stated, is supposed to be that of *F. barbarus*; though the reasons for the correction are not given.

DOBREE, A. On the Nest and Eggs of the Coach-whip-bird and of the White-fronted Ephthianure, with some general

Remarks on the Nidification of Australian Birds. Zoolo-
gist, pp. 9175-9178.

The author describes the nests and eggs of the two species above mentioned, namely, *Psophodes crepitans* and *Ephthianura albigrons*; those of the latter agree with the account given of them by Mr. E. P. Ramsay (Ibis, 1863, pp. 178, 179). Mr. Dobree remarks also on the well-known singularity in the mode of nidification adopted by some of the birds of Australia, and concludes by assigning as a reason for the scarcity of birds in that country the fact that many of them lay so small a number of eggs.

FISCHER, J. C. H. Ægget af Nöddekriegen (*Caryocatactes guttatus*). Krøyer's Naturhist. Tidsskrift, 1864.

Having ascertained that the Nutcracker bred in the island of Bornholm, both in 1862 and 1863, the author was disappointed in his efforts to procure the long-wished-for egg of this species, as in each year the birds had hatched their brood before the nest was found. In the spring of 1864 the haunts of a pair of Nutcrackers were closely watched, and their nest, with four eggs, was discovered on the 23rd March. A description of these and of the nest is appended. (Cf. P. Z. S. 1862, pp. 206-208; Ibis, 1862, pp. 365-368.)

GOULD, JOHN. Description of the egg of *Parra gallinacea*. Proc. Zool. Soc. 1864, p. 661.

It appears closely to resemble the well-known eggs of others of the *Parridae*.

KRÜPER, TH. Beitrag zur Naturgeschichte des Eleonoren-Falken, *Falco eleonora*, Géné. Journ. f. Orn. 1864, pp. 1-23.

The eggs are described as resembling rather those of *F. sub-buteo* than of *F. peregrinus*. The author discovered many nests, and his paper gives very full details of the breeding-habits of the species.

NEWTON, ALFRED. Ootheca Wolleyana: an illustrated Catalogue of the Collection of Birds' Eggs formed by the late John Wolley, Jun., M.A., F.Z.S. Edited from the original Notes. Part I. *Accipitres*. London: 1864. Royal 8vo, pp. 180.

The plates in this portion of the work represent six eggs of *Neophron percnopterus*, twelve of *Aquila chrysaëtus*, twelve of *Archibuteo lagopus*, six of *Pandion haliaëtus*, six of *Falco gyrfalco*, four of *Nyctale tengmalmi*, four of *Surnia ulula*, and four of *Syrnium lapponicum*, besides nests of *Pandion haliaëtus* (two plates), *Astur palumbarius*, *Aquila chrysaëtus* (two plates), *Grus cinerea*, and *Cygnus ferus*. The mode of breeding of most of

these birds is described at considerable length, and chiefly from Wolley's observations.

NEWTON, ALFRED. On the Breeding of the Green Sandpiper, *Helodromas ochropus*. Ann. & Mag. Nat. Hist. 3 ser. xiv. pp. 221-224; Zoologist, pp. 9115-9118. (From P. Z. S. 1863, pp. 529-532.)

Without adducing any novel facts, the author brings together a number of observations, which nearly all agree in showing that this species departs from the habits of its congeners and usually occupies the old nests of other birds, either *Passeres* or *Columbæ*, thus hatching its eggs at a considerable height from the ground.

RAMSAY, E. P. Notes on Birds breeding in the neighbourhood of Sydney. Ibis, 1864, pp. 243-245.

The mode of nidification and the eggs of *Ptilotis auricomis* are described.

SEIDENSACHER, E. Ueber das Ei des kurzbeinigen Sperbers, *Astur brevipes* s. *dussumieri*, *Falco badius*. Verh. Zool.-Botan. Gesellsch. Wien, 1864, pp. 14, 15, pl. i.

Two eggs of this species taken at Smyrna, by Dr. Krüper, from a nest of four, were sent to the author, from whose description and figure it would appear that they pretty well resemble those of other species of the genus *Accipiter*.

Casuaris kaupi from New Guinea. The eggs are stated to resemble those of *C. galeatus* from Ceram, but to be somewhat smoother in the shell. Some details of its mode of nidification are also given.—G. VON ROSENBERG, J. f. O. 1864, p. 134.

ACCIPITRES.

GURNEY, JOHN HENRY. A Descriptive Catalogue of the Rap-
torial Birds in the Norfolk and Norwich Museum. Part I.
Serpentariidæ, *Polyboridæ*, *Vulturidæ*. London, 1864.
Royal 8vo, pp. 90.

This catalogue differs from most works of its kind in giving, (besides the ordinary information respecting the various specimens contained in the collection, their synonymy, localities, and donors) such particulars respecting the geographical distribution, food, nidification, and habits of each species as the author has been able to ascertain, thus making the work a very useful history of the groups included in it. Thirty species of the three families treated of are represented in the Norwich Museum by 141 mounted skins and 16 skeletons.

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F

FALCONIDÆ.

Hogg, JOHN. On the Roman Imperial and Crested Eagles. Ann. & Mag. N. H. 3 ser. xiii. pp. 520-523.

The author strives to identify the *uncrested* Eagle of classical mythology with the *Aquila heliaca* of Savigny, and the *crested* Eagle of the Syrian sculptors with either the *Aquila desmursi* of South Africa or *Spizaetus coronatus* of India!

Aquila barthelemyi. Two living specimens of this doubtful species were procured from the historical nest at Sainte Victoire in 1857. One of them in April 1864, never having previously shown any departure in plumage from the ordinary *A. chrysaetus*, was observed to have the first acapular feather on each side of the body snow-white—the characteristic according to M. Jaubert of his supposed species. An immature male bird from Southern Algeria, in the Norwich Museum, also presents this same peculiarity, and the title of this singular form to be considered specifically distinct merits further observation. J. H. Gurney, *Ibis*, 1864, pp. 339, 340.

Spizaetus agrestis is the immature form of *S. epilogaster*, to which species *S. zonurus* and *S. leucostigma* should also be referred. P. L. Sclater, *Ibis*, 1864, pp. 303, 304; J. H. Gurney, *l. c.* p. 356.

Archibuteo lagopus in adult plumage is figured. J. Gould, B. Grt. Br. part vi.

Buteo vulgaris. The different colouring presented by the young birds of this species is described, and its connexion with the varied plumage of the adults considered, by J. H. Blasius, J. f. O. 1864, pp. 276-289. (See above, under the heading 'Neossology'.)

Falco gyrfalco is represented in A. Newton's 'Ootheca Wolleyana,' pl. C.

Falco eleonoræ. A contribution to the Natural History of this bird is given by Th. Krüper, Journ. f. Orn. 1864, pp. 1-23. The author passed a considerable time in the summer of 1862 on the Cyclades, especially Paros, Naxia, and Mykoni, in investigating the very peculiar economy of this species. It preys upon *Lanius refus*, and, he was told, also on *Gallinago media*. The adult female varies much. He found four distinct types of colouring in six specimens. The author remarks on the synonymy of the species; it is identical with *F. arcadicus* and *F. concolor* of Lindermayer (nec *F. concolor*, Temm.) and *F. dichrous* of Erhard; and proceeds to describe its mode of breeding. It makes no nest, but lays its eggs on cliffs generally in the month of August. In the beginning of October it departs for the winter, but the time of its return the author has not yet precisely ascertained. He does not seem to have seen it, however, before the beginning of April.

Falco dickinsoni is a new species, discovered by the late Dr. Dickinson on the banks of the Shiré, in East Africa. It is allied to *F. ardensiacus* and *F. soniventris*; and for the distinct section which these three species form, the author proposes *Dissodectes* as a subgeneric name. P. L. Sclater, P. Z. S. 1864, p. 248, and *Ibis*, 1864, p. 305, pl. viii.; also J. Kirk, *Ibis*, 1864, p. 316.

Tinnunculus ruficeps, a subspecies, from Egypt and Nubia, of *T. alaudarius*, is treated of. L. Brehm, Nov. Act. Acad. Nat. Cur., 1 June, 1864, pp. 4-8.

Erythropus vespertinus found south of the equator. J. H. Gurney (*vide* C. J. Andersson), P. Z. S. 1864, p. 2, and J. Kirk, *Ibis*, 1864, p. 316.

Alcedo enicoides, from Natal (Ibis, 1859, p. 240), should be *A. verreauxi*, J. H. Gurney, Ibis, 1864, pp. 356, 357.

Astur griseiceps, from Celebes, is noticed and figured. A. R. Wallace, Ibis, 1864, p. 184, pl. v.

Astur macrurus, description of an apparently real male bird of this rare species, and of the type specimen, now considered as the female. H. Schlegel, Nederl. Tijdschr. Dierk. 1864, pp. 155-157.

Accipiter francesi, from the Comoros, is noticed and figured. P. L. Sclater, Ibis, 1864, p. 298, pl. vii.

Accipiter nius is figured. J. Gould, B. Grt. Br. part v.

Accipiter badius has been found breeding at Smyrna by Dr. Krüper, E. Seidensacher, Verh. Zool.-Bot. Gesellsch. Wien, 1864, p. 15.

Micronisus gabar, believed formerly to have been observed in Palestine (Ibis, 1859, p. 26), was probably mistaken for something else. H. B. Tristram, P. Z. S. 1864, p. 429.

Circus aruginosus, *C. cyaneus*, and *C. cinereus*. Observations on the changes in their plumage. J. P. van Wickvoort Crommelin, Nederl. Tijdschr. Dierk. 1864, pp. 3-6.

STRIGIDÆ.

Bubo caligatus has been again procured in Formosa (Ibis, 1863, p. 218). The species may yet prove to be *Syrnium indranea*, and is now referred to that genus. R. Swinhoe, Ibis, 1864, pp. 428, 429.

Syrnium aluco (in rufous plumage) with young is figured. J. Gould, B. Grt. Br. part v.

Ketupa ceylonensis has been found to inhabit Palestine. H. B. Tristram, P. Z. S. 1864, p. 490.

PSITTACI.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 5^{me} Livraison. *Psittaci*. Leyde: 1864. Royal 8vo, pp. 166.

The genera into which the author divides the *Psittaci* are *Arara*, *Conurus*, *Psittaculus*, *Psittacus*, *Eclectus*, *Amazona*, *Psittacula*, *Palæornis*, *Platyercus*, *Euphema*, *Strigopsis*, *Trichoglossus*, *Nanodes*, *Lorius*, *Loriculus*, *Cacatua*, *Microglossum*, *Calyptorhynchus*, and *Nestor*. According to the synopsis at the end of the catalogue, we find that the Leyden Museum contains 1204 examples (including osteological specimens) of 259 species of birds of this order. Lesson's term *Amazona* is used for a comprehensive group of tropical American Parrots, including the older genera *Chrysotis* (in part), *Pionus* and others, which vary in size between *Corvus frugilegus* and *Turdus merula*, with a rather rounded tail, tolerably short, rarely very short, or a little elongated. For the precise boundaries of Professor Schlegel's other groups we must refer our readers to the work itself, as well as for the details of his unification of many of the species

usually considered distinct. No new ones appear to be described.

WALLACE, A. R. On the Parrots of the Malayan Region, &c. Proc. Zool. Soc. 1864, pp. 272-295.

This paper has been already fully noticed among the publications relating to the 'Australian Region,' to which from its contents it seemed properly to belong, but as it is one of very great importance, we again refer to it here that it may not escape the attention of our readers.

BERNSTEIN, H. A. Beschouwingen en Opmerkingen over H. von Rosenberg's Overzicht der Papegaaisoorten, in den Indischen Archipel. Nederl. Tydschr. Dierk. 1864, pp. 325-328. Reprinted from Nat. Tijdschr. Ned. Ind. part xxvii.

The author of course had not seen Mr. Wallace's remarkable paper on the same subject, just cited. Herr von Rosenberg's Review appeared in the 'Journal für Ornithologie' (1862, pp. 59-68).

PLYCTOLOPHIDÆ.

"*Cacatua ducorpsi*, Sclater" (P. Z. S. 1862, p. 141, pl. xiv.), is not *C. ducorpsi*, Hombron et Jacquinot. It is now proposed to be called *C. ophthalmica*. It is larger, with the crest entirely lemon-coloured, and has a blue naked skin surrounding the eye. The author adds a diagnostic list of the thirteen known species of *Cacatua*, and a figure of the true *C. ducorpsi* is given (pl. xvii.)—the new species, *C. ophthalmica*, having been wrongly figured under that name, as quoted above. P. L. Sclater, P. Z. S. 1864, pp. 187-189.

Cacatua cristatella is a new species from Northern Gilolo, similar to *C. cristata*, but, as shown by the dimensions given, much smaller, and with a red instead of an olive iris. A. R. Wallace, P. Z. S. 1864, pp. 279-280.

PLATYCERCIDÆ.

Pyrrhuloxia splendens. A living specimen had been obtained from the Feejee Islands, but died on the voyage to England. Dr. Sclater adds an enumeration of the other species of the group. P. Z. S. 1864, p. 158.

Platycercus personatus is not the young of *P. splendens*, but a very distinct species. G. Hartlaub, Ibis, 1864, p. 232.

STRIGOPIDÆ.

Strigops habroptilus. Careful and interesting observations on the habits of this very curious form are recorded. Julius Haast, Ibis, 1864, pp. 340-346. (Translated from the Verh. Zool.-Bot. Gesellsch. Wien, 10 Oct. 1863.)

PSITTACIDÆ.

Phæcephalus fuscicapillus, the most common Parrot in East Tropical Africa; *P. levillanti*, a much rarer species on the Zambesi than the last-named. J. Kirk, Ibis, 1864, p. 329.

Polyteles alexandrae, sp. n., obtained on Mr. J. M. Stuart's expedition across Australia, much resembles *P. barrabandi*, but has a blue crown, and the lower parts of the cheeks rose-pink instead of yellow. J. Gould, Ann. & Mag. N. H. 3 ser. xiii. pp. 248, 249. (From P. Z. S. 1863, p. 232.)

Cyclopsitta blythi is a new species from Mysol, similar to *C. desmaresti* from New Guinea, but wanting the blue cheek-spot. From the intermediate station of Salawatty, there is a specimen in the British Museum possessing this character in a slight degree. A. R. Wallace, P. Z. S. 1864, p. 284.

Melopsittacus undulatus, its breeding at large in the Tyrol. Althammer, Rev. Zool. 1864, pp. 366, 367.

Ara macao (?), its longevity in confinement (64 or 65 years). H. Aucapitaine, Rev. Zool. 1864, pp. 400-411.

Myiops catharina identical with *Pittacula lineola*. P. L. Sclater, P. Z. S. 1864, pp. 177, 178.

Conurus rhodogaster is a new species, first brought to Europe from Brazil by Natterer. It is allied to *C. lepidus*, but differs from that and others of the group by its scarlet belly. P. L. Sclater, P. Z. S. 1864, p. 298, pl. xxiv.

Conurus ocularis is described as a new species from the isthmus of Panama. It has been confounded by Mr. Lawrence with both *C. pertinax* and *C. chrysogenys*, from which it can be distinguished by its entirely green crown and small subocular spot. P. L. Sclater and O. Salvin, P. Z. S. 1864, pp. 367, 368.

Brotoperys chrysosema is a new species, first brought to Europe from Brazil by Natterer. It is allied to *B. notatus*, but is of a brighter and yellower green colour, and has yellow instead of orange wing-coverts, a larger gular spot, and a bluer crown of the head. P. L. Sclater, P. Z. S. 1864, p. 298.

Chrysotis finschi is a new species, in the British Museum, where it was recognized by Mr. Finsch as distinct from *C. viridigenalis* (from Panama), to which it is nearly allied. But it is larger than that species and has the feathers of the under parts more distinctly bordered with black. P. L. Sclater, P. Z. S. 1864, p. 298.

Chrysotis viridigenalis (from Panama) may ultimately be found to belong to a distinct species, and perhaps entitled to the MS. name *glauiceps* of Hartlaub, given in Mr. Gray's 'List of Pittacidae' (p. 82). P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 368.

TRICHOGLOSSIDÆ.

Lorius speciosus, from the islands in Geelvink Bay, New Guinea, is described as a new species. Said to be very like *L. cyanauchen*, but somewhat larger, and wanting the red band which in that species divides the blue nape from the black crown. The blue also forms two 'horns' running down the sides of the neck, while in *L. cyanauchen* the throat is entirely blue from shoulder to shoulder. There is, besides, in *L. speciosus* a red band, and below it a blue one across the lower part of the upper-neck, of which there is no trace in the other species. G. von Rosenberg, J. f. O. 1864, p. 114.

Chalcopsitta leucopygialis, from Dorey, New Guinea, is described as a new species. G. von Rosenberg, J. f. O. 1864, p. 113.

Charmosyna pectoralis, from Dorey, New Guinea, is described as a new species. G. von Rosenberg, J. f. O. 1864, p. 112.

PICARIÆ.

On the respective Affinities and Classification of the Non-passerine *Insectivores*. E. Blyth, Ibis, 1864, pp. 411, 412.

PICIDÆ.

Celeus fraseri appears undistinguishable from *C. mentalis*. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 367.

Gecinys tancola and *Ficus insularis* are figured. J. Gould, B. As. part xvi.

TROGONIDÆ.

Trogon concinnus of Mr. Lawrence (Ann. Lyc. N. York, vii. p. 463), the type of which is evidently taken from a young bird, is attributed to *T. calligatus*. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 364.

BUCCONIDÆ.

Megalama nuchalis is figured. J. Gould, B. As. part xvi.

Bucco leucocrissus, from Ecuador, is hardly separable from *B. dysoni*, from Guatemala. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 363.

Malacoptila panamensis and *M. inornata* may probably be sexual forms of the same bird. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 363.

MOMOTIDÆ.

All the so-called species allied to *Momotus lessoni*, especially *M. psakrus*, *M. microcephalus*, and *M. subrufescens*, require a careful examination, which will probably lead to the union of several obscure forms which are barely recognizable. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 362.

Momotus martii is referred to *M. semirufus*. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 363.

ALCEDINIDÆ.

Alcedo isipida is figured. J. Gould, B. Grt. Br. part vi.

CAPITONIDÆ.

The error of uniting the *Capitonidæ* with the *Bucconidæ* is again combated by E. Blyth, Ibis, 1864, p. 411.

Tetragonops frantzii is a new species from Costa Rica, smaller and quite differently coloured from *T. rhampastinus*. P. L. Sclater, Ibis, 1864, pp. 371, 372, pl. x.

Monasa flavirostris of Strickland (Contr. Orn. 1850, p. 47) had been already described from the same specimen by Lafresnaye (R. Z. 1860, p. 216) as *M. azillaris*. J. Cassin, Proc. Acad. Philad. 1864, p. 288.

Capito versicolor (Müller). A specimen of this species, which is little known to modern ornithologists, but identical with *Bucco pictus* of Boddaert, *B. elegans* of Gmelin, and *B. maynensis* of Brisson, and figured by Buffon, Pl. Enl. 330, is in the Museum at Philadelphia. J. Cassin, Proc. Acad. Philad. 1864, p. 288.

BUCEROTIDÆ.

Buceros hastatus, and several others of the genus are remarked upon by T. von Heuglin, J. f. O. 1864, pp. 268-271.

Buceros cavatus, *B. albirostris*, *B. pusuran*, and *B. nipalensis*, with *Toccos tickelli*, of which last a figure (pl. iii.) is given, form the subject of a paper by Lieut.-Col S. R. Tickell. *Ibis*, 1864, pp. 173-182.

Buceros cristatus, its habits described. J. Kirk, *Ibis*, 1864, p. 328.

Calao papuensis, from New Guinea generally, and its islands to Waigiou and Aru, is described as a new species, certainly distinct from *C. ruficollis* of the Moluccas, with which it has hitherto been confounded. The New Guinea species always has the head and neck equally yellowish-brown, whereas in the Moluccan bird the yellow passes more into white. The hind-head and neck are, however, dark chestnut-brown. G. von Rosenberg, J. f. O. 1864, p. 117.

MUSOPHAGIDÆ.

Turacus livingstonii, sp. n., approaching *T. albocristatus* in general appearance, but differing in the front feathers of the crest being larger and ending in a prolonged point, brought by Mr. C. Livingstone from the Manganja Highlands of East Africa. G. R. Gray, P. Z. S. 1864, p. 44; *Ann. & Mag. N. H.* ser. 3. vol. xiv. p. 240; J. Kirk, *Ibis*, 1864, pp. 328, 329.

CUCULIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 5^{me} Livraison. CUCULI. Leyde: 1864. Royal 8vo. pp. 85.

The author classes among the *Cuculi* the genera *Indicator*, *Cuculus* (including as subgenera *Cuculus* proper, *Eudynamis*, *Cacomantis*, *Chrysococcyx*, and *Prodotiscus*), *Scythrops*, *Leptosomus*, *Coccyzus*, *Geococcyx*, *Coccytes*, *Oua*, *Crotophaga*, *Phenicoptæres*, *Piaya*, *Neomorphus*, *Centropus*, *Musophaga*, *Colius*, and *Opisthocomus*. Of these he enumerates 122 species as being represented by 842 specimens in the Museum at Leyden. Each species, together with its varieties or local races, which by many naturalists would be deemed good species, is described, and the origin of the different specimens serving to illustrate it in the Museum is, so far as known, carefully given. It would be impossible for us, with the space at our command, to go through the various groups in detail; this however is to be regretted the less, as the work is one which is indispensable to all students of Ornithology. No species are described as new.

Chrysococcyx schomburgki, sp. n., nearly allied to *C. hodgsoni* and *C. xanthorhynchus*, sent from Siam by Sir R. Schomburgk. J. Gould, P. Z. S. 1864, p. 73.

Cuculus libanoticus is described as a new species from Palestine, allied to *C. micropterus* and *C. gularis*, but still more to *C. canorus*, if indeed it be not merely an hepatic variety of the last. H. B. Tristram, P. Z. S. 1864, p. 432.

Cuculus canorus (adult and immature) is figured. J. Gould, B. Grt. Br. part v.

Melignotheres pachyrhynchus, "if new," is described from the Djour-country. Very like *Indicator minor*, perhaps identical with *I. conirostris* (Cassin). T. von Heuglin, J. f. O. 1864, pp. 265, 266.

SCSLATER, P. L. Notes on the Species of Cuckoos of the Genus *Neomorphus*. P. Z. S. 1864, pp. 249, 250.

The author gives diagnoses of the two species known to him, *N. geoffroyi* from South-eastern Brazil, and *N. rufipennis*, from Guiana and the Upper Amazons. The latter he has little doubt is identical with *Coltrides pucherani*, Deville.

Coccyzus bairdi is a new species, similar to, but smaller than, *C. americanus*, and having its wings the same colour as its back, sent from Jamaica by Mr. J. M. Philippi.

The author adds a conspectus of the eight species of the genus known to him, and gives diagnoses of them. He states that there is probably also a ninth, *C. cinereus*, Vieill., of which he does not possess a specimen. The species newly characterized is *C. dominicus*, Baird (nec Brisson, nec Sclater). There appears to be a printer's error in the length assigned to the wing. P. L. Sclater, P. Z. S. 1864, pp. 119-122.

Coccyzus julieni is described as a new species from Sombrero, West Indies, differing from the other yellow-billed species of those islands in being without any rufous colouring below or on the quills. G. N. Lawrence, Ann. Lyc. New York, viii. pp. 42, 43, and 99.

CAPRIMULGIDÆ.

Steatornis caripensis. A breeding locality of this bird in Trinidad is described by E. C. Taylor, Ibis, 1864, pp. 88-90.

Macrodipteryx condylopterus is described as a new species from the Djour-country, resembling *Caprimulgus poliocephalus* in colouring; but the author considers it may form a distinct generic or subgeneric section. T. von Heuglin, J. f. O. 1864, pp. 243, 244.

Cosmetornis spekei, figured in Captain Speke's 'Journey to the Sources of the Nile' (p. 462), is stated by Dr. Sclater (P. Z. S. 1864, p. 111) not to differ from the rare but previously known *C. verillarius*. This species was met with by Captain Speke in Uganda (Ibis, 1864, p. 115), and the only example brought home by him is figured (*loc. cit.* pl. ii.). It is stated by Dr. Kirk (Ibis, 1864, p. 323) to be decidedly common a little above Teté on the Zambesi, as well as on the west side of Lake Nyassa. It would appear from the examination of several specimens that the amount of white on the primaries in this species is variable; hence too much dependence should not be placed on that character as distinctive of the West African *C. burtoni*, described by Mr. G. R. Gray in 1862 (Ann. & Mag. Nat. Hist. ser. 3. vol. x. p. 445).

Caprimulgus tamaricis, a new species from the Dead Sea, where it was discovered by the author. In form and size intermediate between *C. asiaticus* and *C. albonotatus*, but in coloration very distinct. H. B. Tristram, P. Z. S. 1864, pp. 170 and 430.

CYPSELIDÆ.

Cypselus dubius is described as a new species from Central Africa, strongly

resembling *C. apus*, but having all the feathers barely tipped with whitish and the tail more forked. O. Antinori, Cat. Ucc. Afr. centr. p. 25.

TROCHILIDÆ.

Oreopyra hemileuca and *O. calolema* are two new species from Costa Rica. It is just possible that the latter may be the male of *Anthocephala castaneiventris*; but if so, that specific name is totally inapplicable; and anyhow that bird should be referred to the genus *Oreopyra*. The supposed female of the *Panterpe insignis* of Cabanis (Mus. Hein. iii. p. 43, note), described by Mr. Lawrence (Ann. Lyc. New York, viii. pp. 45, 46), is supposed to be identical with *O. castaneiventris*. O. Salvin, P. Z. S. 1864, pp. 584, 585.

Chalybura melanorrhœa and *Selasphorus flammula* are also two new species from Costa Rica; the former is allied to *C. isauræ*, but with a black vent; the latter to *S. platycercus*, but is smaller and has differently coloured rectrices. O. Salvin, P. Z. S. 1864, pp. 585, 586.

Urochroa leucura is described as a new species from Ecuador, closely resembling, and possibly identical with, *U. bougueri*, but differing materially in the colour of the tail. G. N. Lawrence, Ann. Lyc. N. York, viii. pp. 43, 44.

Urostroke ruficrissa is a new species from Ecuador, differing from *U. benjamini* in being larger, in wanting the violet mark beneath the gorget and the white spot behind the eye, in having the crissum rufous instead of green, and in other particulars. G. N. Lawrence, Ann. Lyc. New York, viii. pp. 44, 45.

Ramphomicron (lege *Rhamphomicrus*) *olivaceus* is a new species from Bolivia, exceeding in size any species of that genus, the feet and claws being twice the size of what they are in *R. heteropogon*, which is the only one it at all resembles, and being of a uniform olive colour. G. N. Lawrence, Ann. Lyc. New York, viii. p. 45.

PASSERES.

PITTIDÆ.

WALLACE, A. R. Remarks on the Habits, Distribution, and Affinities of the genus *Pitta*. Ibis, 1864, pp. 100-114.

The author describes at some length the habits of the species observed by him; he considers that in the majority of them the sexes are alike in plumage. He adds the colours of the soft parts of all the species collected by himself, and then proceeds to enumerate the 33 species known to him, which, for convenience' sake, he groups in 10 sections, and, summing them up, finds that Africa and Asia possess 6 species of three groups, Australia 2 species of two groups, whereas the Malay Islands have 25 species of eight groups, proving that the genus is eminently Malayan, and one of the very few that characterize the archipelago as a whole, and not one extremity only of it; though there appears to be a determination both of groups and species towards the Indo-Malayan province. Two species of the same group scarcely ever inhabit the same island, illustrating the theory of the extermination of closely allied forms by the dominant race. Some further deductions from this case of geographical distribution are added, and the author concludes by considering the affinities of the genus, which, with the Old-World subfami-

the *Myiophonina*, *Cincina*, and *Timaliina*, and the *Thamnophilina*, *Formicivorina*, and *Formicariina* of the New World, forms, he thinks, "a large and very natural family of short-winged terrestrial or semi-terrestrial insectivorous birds."

Pitta oreas, sp. n., from Formosa, allied to *P. cyanoptera* and to *P. nympha*. From the former it may be distinguished by its reddish crown and light under parts; from the latter by the colour of its crown and the want of the black chin. R. Swinhoe, Ibis, 1864, p. 428.

FORMICARIIDÆ.

Myrmeciza leucosticta, sp. n., from Costa Rica. O. Salvin, P. Z. S. 1864, p. 582.

Grallaria dives is a new species from Costa Rica, allied to *G. fulviventris* and *G. macularia*, but differing from the former by the rufous margins of its remiges, from the latter by the want of a bare space round the eye, and from both by its straighter hind claw. O. Salvin, P. Z. S. 1864, p. 582.

Hypocnemis flavescens is an undescribed species, discovered by Natterer in Brazil, resembling *H. cantator*, but easily distinguished by its yellow breast. P. L. Sclater, P. Z. S. 1864, p. 600.

Pittasoma michleri is mentioned and figured. J. Cassin, Proc. Acad. Philad. 1864, p. 287, pl. 3.

Thamnophilus doliatius and *T. amazonicus* of Lawrence (from Panama) are referred to *T. affinis* and *T. navius* respectively. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 355.

Myrmotherula gularis, from Esmeraldas (P. Z. S. 1860, p. 294), belongs strictly to *M. fluviventris* of Lawrence, the latter being easily distinguished by the fulvous belly. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 356.

Formicivora quizeensis (from Panama) is referred to *F. boucardi*, *F. consobrina* (from Ecuador) being slightly different. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 356.

Gymnocichla nudiceps. The female described. It is closely allied to *Pyri-glena*. The *Pethys rufigularis* (?) and *Myrmeciza ferruginea* of Mr. Lawrence (from Panama) are referred to this species. P. L. Sclater and O. Salvin, P. Z. S. 1864, pp. 356, 357.

Myrmeciza immaculata is a new species from Panama, differing from the *M. exul* of Sclater, with which it was confounded by Mr. Lawrence, by not having its wing-coverts spotted with white, and being larger. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 357.

PTEROPTOCHIDÆ.

Pteroptochus thoracicus is an undescribed species, discovered by Natterer in Brazil, allied to *P. albicollis*, but smaller in bulk, with a shorter bill (which has a straight culmen and an ascending gonye) and a pectoral spot. The form is subgenerically (if not generically) distinct, and may stand as a separate section, for which the name *Liosceles* is proposed. P. L. Sclater, P. Z. S. 1864, pp. 609, 610 (woodcuts), plate xxxviii.

DENDROCOLAPTIDÆ.

Thripophaga guttuligera, a new species received from Bogota by MM. Ver-

reux, allied to *T. striolata*, but less stout and with the head of a duller colour. It might be arranged either as a *Thripophaga* or as a *Heliolelus*, and serves to connect these two forms. P. L. Selater, P. Z. S. 1884, p. 167.

Sclerurus caudacutus of Lawrence (Ann. Lyc. N. York, vii. p. 320) is supposed to be identical with *Tinactor guatemalensis* of Hartlaub (Rev. Zool. 1844, p. 870). It differs from the true *S. caudacutus* (Vieill.), as well as from *S. macdonaldi*, by wanting the rufous rump those species possess; and in this respect it resembles *S. brunneus*. P. L. Selater and O. Salvin, P. Z. S. 1884, p. 354.

Dendrocicla olivacea, and perhaps *D. fumigata* of Lawrence (from Panama), we referred to *D. atrirostris*, which, however, should be removed to the genus *Dendromanes*, the true *Dendrocicla* having the bill broader and flatter. P. L. Selater and O. Salvin, P. Z. S. 1884, p. 355.

MELIPHAGIDÆ.

Zosterops erythropleura, a new species from Northern China, confounded by Von Schrenck with *Z. chloronotus*, but distinguishable by its deep chestnut-red sides. The author also remarks on the other species of the genus inhabiting China or Japan. R. Swinhoe, Ann. & Mag. N. H. 3 ser. xiii. p. 177. (From P. Z. S. 1863, p. 203.)

Zosterops pallescens, "if new," is described from the Djour-country, with the crown of the head yellow. T. von Heuglin, J. f. O. 1864, pp. 259, 260.

Zosterops fusca is described as a new species from Waigiou. H. A. Bernstein, Nederl. Tijdschr. Dierk. 1864, p. 323.

NECTARINIIDÆ.

Cinnyris comorensis is a new species from the island of Joanna, discovered and described by W. Peters, J. f. O. 1864, p. 161. (Cf. Ibis, 1864, p. 299.)

Anthreptes lepidus, Remarks on. R. H. Schomburgk, Ibis, 1864, pp. 248, 249.

Nectarinia gonzembachi is described as a new species from Central Africa, strongly resembling *N. jardini*, but with violet steel-coloured upper tail-coverts, and the middle rectrices elongated. O. Antinori, Cat. Ucc. Affr. centr. p. 35.

Arachnothera vagans is a new species from Waigiou, where it is much less common than *A. nova-guineæ*. H. A. Bernstein, Ned. Tijdschr. Dierk. 1864, pp. 322, 323.

CEREBIDÆ.

CASSIN, J. Notes of an Examination of the Birds of the Subfamily *Cerebinæ*. Proc. Acad. Philad. 1864, pp. 265-275.

The author considers that the *Certhia cyanea* of Linnæus may be presumed to be the type of the genus *Cereba*, of which he particularizes 8 species. To the genus *Chlorophanes* he refers one species, distinguishing 4 varieties, two of them (*C. spiza* var. *cærulescens*, and *C. spiza* var. "d." *melanops*) for the first time. Under the genus *Dacnis* he enumerates 12 species (grouping them in the subgenera *Cyanodacnis*, *Polidacnis* [qu. *Polidacnis* ?], *Eudacnis*, *Atelodacnis*, and *Hemidacnis*). In *Certhiola* Mr. Cassin includes seven species, and mentions a specimen in the Smithsonian Museum, which probably belongs to

another and undescribed one. Of *Conirostrum* he particularizes 4 species, of which one is doubtful; to *Diglossa* he refers 13 species, arranging them in the subgenera *Diglossa*, *Tephrodiglossa*, *Pyrrhodiglossa*, *Cyanodiglossa*, and *Melanodiglossa*, while under *Diglossopsis* he mentions one single species. The whole of this valuable paper is worked out with that elaborate skill which characterizes so many, if not all, of Mr. Cassin's contributions to Ornithology.

Dacnis ultramarina is a new species from the Isthmus of Panama, closely resembling *D. cerebicolor* and *D. cayana*, but lighter than the first and darker than the last, and differing from both in the black of the lore not extending behind the eye, and the dull colour of the spot on the throat. It is the *D. cerebicolor* of Lawrence (*nec* Sclater), Ann. Lyc. N. Y. vii. p. 291. G. N. Lawrence, Proc. Acad. Philad. 1864, p. 106.

Certhiola luteola is the continental species of this genus, smaller than the others, and not having the prominent pink lips. E. C. Taylor, Ibis, 1864, p. 81. The true *C. flaveola* occurs in Porto Rico. In Dominica there is another species, described as new under the name of *C. dominicana*; it differs from the last in having the yellow rump much less clearly defined, the throat much darker in colour, the yellow under parts much brighter and deeper in tint, and also wants the white outer edge of the primaries. *C. albicula* from Martinique is not quite so large as the Dominican bird, is paler and duller yellow beneath, and the patch on the rump hardly perceptible. It also wants the white on the primaries; but the most striking specific character is a broad white stripe down the middle of the throat. *Id. loc. cit.* pp. 166, 167.

COTINGIDÆ.

Pyrites griseiceps is a new species from Costa Rica, allied to *P. chlorion*, but wanting the yellow forehead, and with an ash-coloured head. O. Salvin, P. Z. S. 1864, p. 583.

Pipra nattereri is an undescribed species, discovered by Natterer in Brazil. It comes near *P. isidori* and *P. serena*, but is easily known by its green body-colour and pure white cap and rump. P. L. Sclater, P. Z. S. 1864, p. 611, pl. xxxix.

Lipangus rufescens. The locality "Coban," hitherto assigned for this species, and for all the specimens said to have been collected by M. Delattre in Guatemala, is probably a mistake. P. L. Sclater and O. Salvin, P. Z. S. 1864, pp. 364, 365.

Carpodectes is a new genus, akin to *Ampelio* from South America, but having a stronger and higher bill and longer wings. The type is *C. nitidus*, a new species from Costa Rica. O. Salvin, P. Z. S. 1864, pp. 583, 584, pl. xxxvi.

AMPELIDÆ.

Myiadestes melanops is a new species from Costa Rica, allied to *M. unicolor*, but with a black forehead and chin and an orange bill. O. Salvin, P. Z. S. 1864, pp. 580, 581, pl. xxxv.

TIMALIIDÆ.

Pomatorhinus erythrocnemis is figured. J. Gould, B. As. part xvi.

Garrulax ruficeps and *G. pectorhyncha* are figured. J. Gould, B. As. part xvi.

Alcippe brunnea is figured. J. Gould, B. As. part xvi.

HIRUNDINIDÆ.

Psalidoprocne albiceps is a third and, apparently, new species of this little African group, brought by Capt. Speke from Usinza. The author adds the synonymy of the two previously known species, *P. holomelana* and *P. pristo-ptera*, from which the present is easily known by its white head and throat. P. L. Sclater, P. Z. S. 1864, p. 108, pl. xiv.

Hirundo monteirii (qu. *H. senegalensis*, sexus alterius? vide J. H. Gurney, Ibis, 1863, p. 317) observed on the River Shiré, Zambesia, alighting on the clay banks and entering holes. J. Kirk, Ibis, 1864, pp. 319, 320.

Hirundo tytleri is described as a new species from Bengal, glossy black above, beneath dark ferruginous chestnut. Form and size of *H. rustica*. T. C. Jerdon, B. India, iii. p. 870.

Hirundo rupestris, observed several times in large flocks near Lisbon. C. F. Mathews, Naturalist, 1864, p. 90.

EDOLIIDÆ.

Graucalus frenatus is described as a new species from the Djour-country. Very like *G. pectoralis*, but with forehead and eyelashes silvery-white, and lores markedly black. T. von Heuglin, J. f. O. 1864, p. 255.

VIREONIDÆ.

Vireosylva olivacea. Under the name of *Muscicapa olivacea*, a specimen of this bird is recorded as having occurred near Derby in May 1859. Edwin Brown, Zool. pp. 8965-8967. (From 'The Natural History of Tutbury. By Sir Oswald Mosley. With the Fauna and Flora of Burton-upon-Trent. By Edwin Brown. London: 1863,' pp. 385-388.) The author unfortunately quotes the remarks of Mr. Gosse on *Vireosylva altiloqua* of Jamaica, as applicable to the present species.

TYRANNIDÆ.

Myiobius capitalis is a new species from Costa Rica. O. Salvin, P. Z. S. 1864, p. 583.

Pyrocephalus obscurus perhaps an abnormal form of *P. mexicanus*. P. L. Sclater, P. Z. S. 1864, p. 176.

Camptostoma flaviventris is a new species from Panama, referred to *C. imberbe* by Mr. Lawrence, but apparently distinct from it, and to be recognized by its clear yellow belly and more distinct brownish cap. It has also been collected in Ecuador by Mr. Fraser. P. L. Sclater and O. Salvin, P. Z. S. 1864, pp. 358, 359.

Tyrannus magnirostris of Dr. Sclater's 'Catalogue' (No. 1449, p. 236) appears to him now not to be *T. magnirostris* of D'Orbigny. It is therefore described under the name *T. rostratus*. P. L. Sclater, Ibis, 1864, p. 87, note.

Pitangus taylori is a new species, found by Mr. E. C. Taylor in Porto Rico, akin to *P. caudifasciatus*, but wanting the band on the tail, and fuscous instead of blackish-grey above. P. L. Sclater, Ibis, 1864, p. 169, note.

LANIIDÆ.

Lanius mexicanus from Mexico is *L. excubitoroides*. P. L. Sclater, P. Z. S. 1864, p. 178.

Lanius pallidus is described as a new species from Central Africa, intermediate in size between *L. minor* and *L. excubitor*, and with the coloration peculiar to birds of the desert. O. Antinori, Cat. Ucc. Afr. centr. pp. 56, 57.

Prionops tricolor. Described as a new species allied to *P. retzii*, obtained during the Zambesi Expedition. G. R. Gray, P. Z. S. 1864, p. 45; Ann. & Mag. N. H. ser. 3. xiv. p. 379. Mr. Gray appends to his notice an enumeration of the six species of the genus now known, as well as the three of the genus *Sigmodus*, which he now considers allied to *Prionops*. Dr. Sclater (Ibis, 1864, p. 319, note) says that *P. tricolor* appears to him to be not different from *P. retzii*.

MUSCICAPIDÆ.

Smithornis rufolateralis, a new species of smaller size, and of more variegated plumage than the single species (*S. capensis*) previously known. Brought from West Africa, but the exact locality unknown. G. R. Gray, P. Z. S. 1864, p. 143; Ann. & Mag. N. H. ser. 3. xiv. p. 457.

Leucocerca lessoni is by no means a *Leucocerca*, but a very distinct form, to be separated generically. G. Hartlaub, Ibis, 1864, p. 232.

Cyornis civida, sp. n., from Formosa, allied to *C. rubeculoides*. R. Swinhoe, Ibis, 1864, p. 363.

Butalis grisola and *Muscicapa atricapilla* are figured. J. Gould, B. Grt. Br. part v.

Muscicapa aquatica is described from the Djour-country. T. von Heuglin, J. f. O. 1864, pp. 256, 257.

Muscicapa muscipeta, a subspecies of *M. atricapilla*, is treated of. L. Brehm, Nov. Act. Acad. Nat. Cur., 1 June, 1864, pp. 9-13.

Erythrosterna parva has a second time occurred in England. E. H. Rodd, Ibis, 1864, pp. 180, 181. Its subspecies *rufigularis* is treated of. L. Brehm, Nov. Act. Acad. Nat. Cur., 1 June 1864, pp. 14-17.

Elminia teresita is a new species from Central Africa, strongly resembling *E. longicaudata*, but with a rather larger bill, hind-head somewhat crested, and black lorea. O. Antinori, Cat. Ucc. Afr. centr. p. 50.

MNIOTILTIDÆ.

The genera of this family and its allies are very minutely differentiated by Professor Baird, and the variations of structure in their tongues microscopically examined by Dr. W. Stimpson, the descriptions being illustrated by a series of woodcuts. Rev. Am. Birds, pp. 160-167.

Perisaglossa is a new genus established for the *Dendrocyga tigrina* (*Sylvia maritima*, Wilson), the characters being chiefly based on its lingual structure, which is so fundamentally different as compared with that of other members of the family as almost to warrant its entire removal from *Mniotiltidae*. S. F. Baird, Rev. Am. Birds, p. 162.

Parula inornata is described as a new species from Guatemala, differing from *P. pitiayumi* (v. *brasiliensis*), with which it has hitherto been confounded, by wanting the white bands on the wings and the ochreous throat. S. F. Baird, Rev. Am. Birds, pp. 169, 171.

Basileuterus cinereicollis is a new species received from Bogota by MM. Verreaux, resembling *B. coronatus*, but differing in the colour of its crest and throat. P. L. Selater, P. Z. S. 1864, p. 166.

Granatellus pelzelni is an undescribed species discovered by Natterer in Brazil (thus extending the range of the genus into South America), distinguishable from *G. venustus* by the want of the narrow black breast-band and the outer rectrices not being tipped with white, and from *G. salliei* by its white throat. P. L. Selater, P. Z. S. 1864, p. 606, pl. xxxvii. fig. 1.

Diagnoses of the three species of this genus are added (*op. cit.* p. 607), and a figure of *G. venustus* is given (*tab. cit.* fig. 2), copied from that of M. du Bus in his unpublished 'Esquisses Ornithologiques' (pl. 84).

TURDIDÆ.

Turdus pilaris. A very full account of three colonies which had been formerly described by Herr. O. von Boenigk (Naumannia, I. iv. pp. 29-37) is given by Alexander von Homeyer, J. f. O. pp. 289-296.

Turdus pilaris and *T. iliacus* are figured. J. Gould, B. Grt. Br. part vi.

Turdus gurneyi, sp. n., from Natal. G. Hartlaub, Ibis, 1864, p. 350, pl. ix.

Turdus albiceps is a new species from Formosa, nearly allied to *T. castaneus*. On the carpal edge of the wing is a rather conspicuous tubercle or wart; "it is of course an abortive wing-spur, which in *Turdus dactylopterus*, Bp., of Syria appears to have acquired a full development." R. Swinhoe, Ibis, 1864, pp. 363, 364.

Turdus confinis is described as a new species from Cape San Lucas, with a general resemblance to an immature *T. migratorius*, especially its western variety, but has rather different proportions, is much paler beneath, with a greater extent of white on the belly and no black or dusky on the head. S. F. Baird, Rev. Am. Birds, pp. 29-31.

Mimocichla schistacea is described as a new species from Cuba, with stouter bill and legs, and no cinnamon-red on the body. S. F. Baird, Rev. Am. Birds, pp. 37, 38.

Platycichla is a new genus, with the general appearance of a *Planesticus*, but differing markedly in having a short and very broad deeply cleft bill, much depressed at the base and with moderate bristles. The feet are weak, the tarsi very short, being less than the middle toe and claw, and without transverse divisions. In external form the genus exhibits an approach to the *Ampelidæ*, especially to *Myiadestes*.

P. brevipes (sp. nov.) is the type of the genus. A specimen from the coast of South America, probably from Brazil, is in the Smithsonian Museum. Two others are in that of the Philadelphia Academy. It may possibly be the *Cichlopsis leucogenys* of Cabanis (Mus. Hein. i. p. 54, note), but it cannot be reconciled with the description of that genus and species. S. F. Baird, Rev. Am. Birds, pp. 82, 83.

Kittacincula (lege *Cittacincula*) *auricularis* is a new species from Formosa, with

a bill proportionately stronger than in *C. macrura*. R. Swinhoe, Ibis, 1864, pp. 361, 362.

Melanoptila glabrirostris found on several of the outer Cays on the Belize coast. O. Salvin, Ibis, 1864, p. 380.

Catharus gracilirostris is a new species from Costa Rica, resembling *C. frantzii*, but easily recognized by its ash-coloured throat and crown. O. Salvin, P. Z. S. 1864, p. 580.

Hypsipetes niveiceps is a new species from Swatow in China; it differs from the Formosan *H. nigerrimus* in having a white head and a smaller bill, though the bird is larger, and also in several other particulars. R. Swinhoe, Ibis, 1864, p. 424.

Hypsipetes nigerrima is figured. J. Gould, B. As. part xvi.

Myiophonus insularis is figured. J. Gould, B. As. part xvi.

Pericocotus griseocularis is figured. J. Gould, B. As. part xvi.

SYLVIIDÆ.

PETERS, W. Eine neue Singvögel-Gattung *Cichladusa*. Monatsber. K. Akad. Wissensch. Berlin, 16 March, 1863. J. f. O. 1864, pp. 252, 253.

This new genus agrees with *Bessonornis* in the form of its wing- and tail-feathers, as well as in its booted tarsi, but differs from that form not only by having a stronger bill, and stiff comb-shaped feathers on the forehead, but also by having round instead of cuneiform nostrils.

Cichladusa arguata, sp. nov., from Sena, near the Zambezi, is described as the type, and the author states that *Crateropus guttatus* of Heuglin belongs to the same genus.

Myiomela montium is a new species from Formosa allied to *M. leucura*, but wanting the blue eye-streak, and having a differently marked tail. R. Swinhoe, Ibis, 1864, pp. 362, 363.

Saxicola albigularis from Palestine is referred to the genus *Bessonornis*. H. B. Tristram, P. Z. S. 1864, p. 441.

Pratincola rubetra and *P. rubicola* are figured. J. Gould, B. Grt. Br. part vi.

Ruticilla phænucurus and *R. tithys* are figured. J. Gould, B. Grt. Br. part vi.

Acrocephalus stentorius has been met with near Damietta by S. S. Allen. Ibis, 1864, pp. 97, 98, plate i.

Acrocephalus arundinaceus, on the nidification of. E. O. Herklotz, Sitzungsber. Ak. Wien, 1864, pp. 56, 57.

Calamohrpe gracilirostris is a new species from Natal. G. Hartlaub, Ibis, 1864, p. 348. Additional particulars respecting it are added. T. Ayres, loc. cit.

Curruca rubricapilla, a subspecies of *C. atricapilla*, is treated of. L. Brehm, Nov. Act. Acad. Nat. Cur., 1 June 1864, pp. 18-23.

Phyllopneuste rufa, apparently wintering in Cornwall. Stephen Clogg, Zool. pp. 2022, 2023.

Hypolaïs (lege *Hypolaïs*) *upcheri* is described as a new species from northern Palestine. Its nest and note are very different from those of its congeners. H. B. Tristram, P. Z. S. 1864, p. 438.

Poliophtila nigriceps is a new species from Mazatlan, resembling *P. melanura*

in general appearance, but readily distinguished by the white outer tail-feather and much purer white of the under parts. It differs also in other respects from the remaining species of this genus. S. F. Baird, Rev. Am. Birds, p. 69.

Drymæca valida and *D. iodoptera* are described as new species from the Djour-country. T. von Heuglin, J. f. O. 1864, pp. 258, 259.

Drymæca (?) *troglodytes* is described as a new species from Central Africa. O. Antinori, Cat. Ucc. Affr. centr. p. 38.

Eremomela (?) *elegans* is described from the Djour-country. The proportions of the remiges correspond with the generic characters, but the inner toes are somewhat shorter than the outer. T. von Heuglin, J. f. O. 1864, p. 259.

Eremomela (?) *canescens* is described as a new species from Central Africa, wanting the white ring round the eye. O. Antinori, Cat. Ucc. Affr. centr. p. 38.

MOTACILLIDÆ.

Notiucorys is the name of a new group established for the reception of *Anthus rufus* of Lawrence (from Panama), and characterized by its short, rounded wings, the points of which are formed by four outer primaries of nearly equal length. S. F. Baird, Rev. Am. Birds, pp. 151, 153, 156.

Pediocorys is another new group, characterized by its short, rounded wings, the points of which are formed by five outer primaries, the first shorter than the third. It comprehends *Anthus bogotensis* of Sclater, from Bogota and Ecuador, and a second species, supposed to be from Uruguay, similar in appearance to *Neocorys spraguii*, but having differently formed wings and a rather different coloration. This second species is left unnamed. S. F. Baird, Rev. Am. Birds, pp. 151, 153, 157-159.

TROGLODYTIDÆ.

The genus *Rhodinocichla* heretofore generally placed among the *Dendrocolaptidæ*, appears to belong truly to the *Oscines*, and possibly to the *Troglodytidae*; and Dr. Sclater is inclined to place it very near *Heleodytes*. S. F. Baird, Rev. Am. Birds, p. 91, note; P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 345.

Campylorhynchus megalopterus of Sclater (*passim*, except Proc. Acad. Philad. 1856, p. 264) is identical with *C. pallescens* of Lafresnaye (Rev. Zool. 1846, p. 93), while *C. pallescens* of Sclater is *C. balteatus*. S. F. Baird, Rev. Am. Birds, pp. 101-103.

"*Cyphorhinus lawrencii*, Scl. MS.," Lawrence, Ann. Lyc. N. York, viii. p. 5 (= *C. cantans*, Lawr. olim, nec Gmel.), is now for the first time completely described. It resembles *C. phæcephalus*, but has a brighter chestnut breast and cinereous belly. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 345.

Heterorhina is proposed as the name of a group of some five species, formerly comprehended in the subgenus *Microcerculus*, with the *Cyphorhinus leucostictus* of Cabanis as its type*. The chief characters of the new group are, tail firm

* This is Professor Baird's first statement on page 114, but on the following page we have "*Heterorhina*, Baird. (Type *Scytalopus prosthaleucus*, Sclater)"! 1864. [VOL. I.] g

and "two-thirds the wing" (qu. longer or shorter than?), the nostrils not so much doubly perforate, as with one large oval aperture, divided by a nearly horizontal septum, which shows in the aperture without being united to the anterior margin. The tarsal scales sometimes distinct, sometimes fused. S. F. Baird, Rev. Am. Birds, pp. 114, 115.

Thryophilus is a new genus instituted for a group of species which have before been classed with *Thryothorus*. The bills of the two are the same, but that of the new genus is more notched, nostrils imperforate, and wanting the overhanging membranous scale of *Thryothorus*. No type is assigned to the genus, but *Thryothorus rufalbus* stands first in the species enumerated. S. F. Baird, Rev. Am. Birds, pp. 93-134.

Thryophilus rufalbus from Panama and New Granada differs from a specimen received from Guatemala in having a whiter belly, sides washed with red, the black tail-bands being half as wide as the intervals between them, while in the Guatemalan bird the belly is ashy-white, the sides are without any tinge of red, and the black tail-bands are narrower. This latter is separated as a variety under the name of *poliopleura*. *T. sinaloa* is described as a new species from North-western Mexico. It is smaller than *T. rufalbus*, and is greyish above instead of cinnamon-red; it differs also from the other species of the group. S. F. Baird, Rev. Am. Birds, pp. 128-130.

Troglodytes ædon, from Eastern Mexico, appears to differ slightly from northern specimens, being paler above, and possibly rather smaller, and is distinguished as *var. aztecus*. Examples also of *T. hyemalis* from the western coast of the United States are considerably darker above than those obtained in the east. They also have little or none of the whitish spotting among the dusky bars, the under parts are more rufous, the tarsi shorter and the claws larger. Hence they are distinguished as *var. pacificus*. In like manner eastern specimens of *Cistothorus palustris* have shorter bills and more obsolete markings than western ones. These are distinguished as *var. paludicola*. S. F. Baird, Rev. Am. Birds, pp. 139, 140, 145 and 148.

Troglodytes inquietus is described as a new species from Panama. It was at first considered by Mr. Lawrence (Ann. Lyc. N. York, vii. p. 320) to be the same as *T. hypædon*, but it is larger with longer bill and legs. The colours beneath are paler, the lower part of the sides distinctly barred, the upper parts considerably greyer. S. F. Baird, Rev. Am. Birds, p. 143. (Cf. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 346.)

Thryothorus petenicus of Salvin (P. Z. S. 1863, p. 187) agrees almost exactly in size and proportions with *Troglodytes albinucha* of Cabot (Proc. Boston N. H. Soc. ii. p. 258), being only a very little smaller. The coloration and markings are precisely similar, the only difference being in the tail, which is not incompatible with the identity of the two birds. S. F. Baird, Rev. Am. Birds, pp. 149, 150.

Thryothorus atrogularis and *T. thoracicus* are two new species from Costa Rica. The former somewhat resembles *T. coraya*, but has a long strong bill and a black throat; the latter *T. maculipectus*, but has barred wings, distinct markings on the throat and breast, and a stronger bill. Its place seems to be near *T. pleurostictus*; and both these new species belong to the section *Pheugopedius*. O. Salvin, P. Z. S. 1864, p. 580.

PARIDÆ.

Parus castaneiventris is figured. J. Gould, B. As. part xvi.

Egithalus parvulus is described as new, from the Djour-country. T. von Heuglin, J. f. O. 1864, p. 260.

Auriparus is a new genus established for the reception of the *Egithalus flaviceps* of Sundevall. The genus is not absolutely characterized, but for the peculiarities authorizing this step we are referred to Prof. Baird's 'Birds of North America' (p. 390). S. F. Baird, Rev. Am. Birds, p. 85.

MALURIDÆ.

Malurus sericyaneus, from Dorey, is described as a new species, 12½ inches long, of which the tail measures 5½. Black, with blue chin, throat, and breast. On the crown a broad, and on the upper neck a narrow silvery ultramarine spot. Upper part of the back, wing-coverts, and exterior of the wing- and tail-quills dull blue. G. von Rosenberg, J. f. O. 1864, p. 119.

TANAGRIDÆ.

Saltator intermedius is described as a new species from Panama, intermediate in colour and markings between *S. magnus* and *S. magnoides*; the crissum is, however, darker than in either of those. It is the *S. magnus* of Lawrence (nec Gmelin), Ann. Lyc. N. Y. vii. p. 297. G. N. Lawrence, Proc. Acad. Philad. 1864, p. 106. Mr. Lawrence's opinion opposed, P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 351.

Saltator fulviventris is a new species from Paraguay, not resembling any species with which the author is acquainted, the yellow superciliaries, fulvous under-colouring, and dark tail with an olive upper plumage being peculiar characteristics. G. N. Lawrence, Ann. Lyc. New York, viii. p. 41.

Orthogonys olivaceus is mentioned and figured. J. Cassin, Proc. Acad. Philad. 1864, p. 287, pl. 2.

Calliste lavinia is figured in Proc. Acad. Philad. 1864, pl. 1. fig. 1; and the three other species of the subgenus *Gyrolo* to which it belongs are particularized. J. Cassin, op. cit. 1864, pp. 286, 287.

Calliste hannahie is a new species from the Merida Mountains, Venezuela, resembling generally *C. cyaneicollis*, but larger, with a smaller bill, the abdomen always black (instead of blue), and other differences. J. Cassin, Proc. Acad. Philad. 1864, p. 287, pl. 1. fig. 2.

Euphonia fulvicrissa. Detailed descriptions of both sexes of this species, which must be removed into the vicinity of *E. gouldi*, are given by P. L. Sclater and O. Salvin, P. Z. S. 1864, pp. 349, 350.

Tachyphonus cassini, having both sexes alike, is referred to the group *Eucometis*, and is figured. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 351, pl. xxx.

Tachyphonus tibialis and *T. napensis* are described as new species; the former from Costa Rica, the latter (which is something like *T. surinamus*, but smaller and with a reddish-chestnut instead of a pale fulvous rump) from the Rio Napo. G. N. Lawrence, Ann. Lyc. New York, viii. pp. 41, 42.

Lanio leucothorax is a new species from Costa Rica, allied to *L. aurantius*, but easily distinguishable by its whitish throat. O. Salvin, P. Z. S. 1864, p. 351.

Chlorospingus pileatus is a new species from Costa Rica, hardly resembling any other of the genus. It differs from *C. flavipectus* by its black head with white streaks on either side of it, and from *C. superciliaris* by its stouter bill and the colour of the lower parts. O. Salvin, P. Z. S. 1864, pp. 581, 582.

Tanagra olivina is an undescribed species discovered by Natterer in Brazil, allied to *T. striata*, but differing from that bird by both sexes being similar in plumage, and the yellowish colour of the throat and abdomen. P. L. Sclater, P. Z. S. 1864, p. 607.

PLOCEIDÆ.

Textor castaneoauratus is described as a new species from Central Africa, differing from the *Hyphantornis castaneofusca* of Dr. Hartlaub by its smaller size and yellow abdomen. O. Antinori, Cat. Ucc. Afr. centr. p. 65.

Textor atrogularis and *T. chrysopygus* are described as new species from the Djour-country. The former is very like *T. vitellinus*, but with a yellow cap; the latter resembles the former, but is a little larger and stouter, and with a bright yellow rump: further on (p. 253) the author considers it a doubtful species, and probably the same as *T. vitellinus*. T. von Heuglin, J. f. O. 1864, pp. 245, 246.

Euplectes pyrrhazona, "if new," is described from the Djour-country. T. von Heuglin, J. f. O. 1864, pp. 246, 247. It is probably identical with *E. flammiceps*.

Foudia hamatocephala is described as new from the Djour-country. In form of the bill it resembles the genus *Quelea*, but in distribution of colour it is like *F. erythrope*. T. von Heuglin, J. f. O. 1864, pp. 250-254.

Estrela melanopygia is described as a new species from the Djour-country. Very like *E. astrild*, but with under tail-coverts whitish, and second and third rectrices conspicuously white. T. von Heuglin, J. f. O. 1864, p. 251.

Lagonosticta lateritia is described as a new species from the Djour-country, resembling *L. rufopicta*, but with whitish-grey under tail-coverts. T. von Heuglin, J. f. O. 1864, pp. 251, 252.

Habropygga rara is described as a new species from Central Africa. O. Antinori, Cat. Ucc. Afr. centr. pp. 72, 73.

FRINGILLIDÆ.

Loxia mexicana not distinct from *L. americana*. P. L. Sclater, P. Z. S. 1864, p. 174.

Loxia balearica, A. von Homeyer, Ber. XIV. Versamml. D. O. G. pp. 17, 18. (Error corrected J. f. O. 1864, p. 224.) Some facts respecting this local form of *L. curvirostra* are added to those previously recorded (J. f. O. 1862, pp. 256-258) by its discoverer, the author, who subsequently (J. f. O. 1864, pp. 322-324) expresses his opinion that the birds found by Mr. Tristram in Southern Algeria must belong to *L. balearica*, and gives a table of measurements of this form.

Loxia pityopsittacus, *L. curvirostra* (with young), *L. bifasciata*, and *L. leucoptera* are figured. J. Gould, B. Grt. Br. part v.

Crithagra barbata is described as new from the Djour-country. T. von Heuglin, J. f. O. 1864, pp. 248, 249. It is probably identical with *Serinus icterus* (Vieill.).

Passer salicicola and *P. italia*, for all purposes of science, should be considered as one. C. A. Wright, *Ibis*, 1864, p. 52.

Passer moabiticus is a new species, having apparently a very limited range near the Dead Sea, where it was discovered by the author. H. B. Tristram, P. Z. S. 1864, pp. 169 and 446; very numerous near Lisbon, G. F. Mathews, *Naturalist*, 1864, p. 89.

Serinus meridionalis, remarks on, by Dr. Rohnkert. J. f. O. 1864, pp. 396-398: very numerous near Lisbon, G. F. Mathews, *Naturalist*, 1864, p. 89.

Serinus asurifrons is described as a new species from Northern Palestine. It would have been supposed to be the *Fringilla syriaca* of Hemprich and Ehrenberg, but the diagnoses are not reconcileable. H. B. Tristram, P. Z. S. 1864, p. 447.

Embernagra superciliosa is a new species from Costa Rica, resembling *E. chloronota* and its allies, but to be distinguished by the conspicuous stripes on the head and its smaller size. O. Salvin, P. Z. S. 1864, p. 582.

Poospiza oxyrhyncha is an undescribed species discovered by Natterer in Brazil, with a much rounded tail, but a typical *Poospiza*. P. L. Sclater, P. Z. S. 1864, p. 608.

Spermophila pileata is an undescribed species discovered by Natterer in Brazil, allied to *S. aurantia*, but differing in the sober colour of its body. Natterer obtained at least eight species of *Spermophila*. P. L. Sclater, P. Z. S. 1864, pp. 607, 608.

Phonipara omissa is thought to be the species found in Porto Rico. E. C. Taylor, *Ibis*, 1864, p. 167, and P. L. Sclater, *ibid.* p. 405.

EMBERIZIDÆ.

Emberiza pusilla has occurred near Brighton. J. Gould, P. Z. S. 1864, p. 377.

ALAUDIDÆ.

Melanocorypha infusca and *Galerita modesta* from the Kosanga river (Central Africa) are described as new. T. von Heuglin, J. f. O. 1864, pp. 273, 274.

Galerita (lege *Galerita*) *brachyura*, distinguished from others of the genus by its short tail and long wings, is a new species from the Ghor (Palestine). H. B. Tristram, P. Z. S. 1864, p. 435.

Calandrella hermonensis and *Anmomanes fraterculus* from Palestine are described as new species. The former is larger and more brightly coloured than *C. brachydactyla*, the latter is smaller and more slender than *A. isabellina*. H. B. Tristram, P. Z. S. 1864, p. 434.

ICTERIDÆ.

Cassicus vitellinus is described as a new species from Panama and Nicaragua, resembling *C. persicus*, but larger than that bird, and differing most markedly in the extent of the yellow on the tail-feathers. It is the *C. icteronotus* of Lawrence (*nec* Vieillot), Ann. Lyc. N. Y. vii. p. 297. G. N. Lawrence, Proc. Acad. Philad. 1864, p. 107.

Cassicus microrhynchus is described as a new species from Panama. It is the *C. uropygialis* of Lawrence (*nec* Lafresnaye), resembling *C. uropygialis*

-and the true *C. hemorrhous* in having a red rump, but to be distinguished from the latter by its much smaller size, and from the former by its smaller and differently-formed bill. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 353.

Icterus baltimore received from Panama, the most southern locality recorded for the species. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 353.

STURNIDÆ.

Gracula intermedia, Mimetic powers of. R. H. Schomburgk, Ibis, 1864, pp. 255, 256.

EPIMACHIDÆ.

Seleucidés alba (sub nom. *resplendens*), some details of the different stages of plumage and of the habits of the bird, as observed by the author. G. von Rosenberg, J. f. O. 1864, pp. 123-125.

PARADISEIDÆ.

Schlegelia is a new genus, characterized as having the head almost entirely bald, being beset by a few hairs only, and the two middle rectrices in the male very long, recurved and spirally contorted. The type is *Schlegelia calva*, from the interior of Waigiou, previously described by Professor Schlegel (Nederl. Tijdschr. Dierk. 1864, pp. 1, 2), on Dr. Bernstein's authority, as belonging to the group *Diphyllodes*, containing *Paradisea speciosa* and *P. wilsoni*, which two species it resembles in size and form. In the male the top of the head is covered with a bare skin of a very brilliant cobalt-blue, in the female of a dull blue, varied with red and grey. The rest of the head and chin are black, the hind part of the neck and mantle straw-colour. The rest of the back is of a fine red as in *P. regia*. The front of the neck and throat are of a fine deep green with metallic reflexions, the breast and belly are black. In the female the distribution of the colours, especially on the lower parts, resembles that of *Funx torquilla*. H. A. Bernstein, Nederl. Tijdschr. Dierk. 1864, pp. 320-322.

Paradisea papuana, the changes of plumage are described, and some other notes added by G. von Rosenberg, J. f. O. 1864, pp. 126-129.

CORVIDÆ.

Garrulus taiwanus is figured. J. Gould, B. As. part xvi.

Cyanocitta diademata and *C. coronata*. The names perhaps misplaced by Bonaparte, the latter being the bird of the table-land of Mexico. P. L. Sclater, P. Z. S. 1864, p. 175.

Cyanopica cooki. Under the pseudonym of *Pica cyanea* some interesting notes on the habits of this species as observed near Lisbon are given. G. F. Mathews, Naturalist, 1864, pp. 49-51, 69-71.

Urocissa carulea is figured. J. Gould, B. As. part xvi.

Corvus colonorum is a new species from Formosa, resembling *C. sinensis*, but differing from it by having the feathers of the throat rounded and not lanceolate. R. Swinhoe, Ibis, 1864, pp. 427, 428.

Corvus agricola is a new species from Palestine, resembling *C. frugilegus*, but having a green instead of purple gloss on the feathers, and those of the throat lanceolate as in *C. copensis*. H. B. Tristram, P. Z. S. 1864, p. 444.

Corvus frugilegus is figured, J. Gould, B. Grt. Br. part v. A singular method of capturing this species is described by E. O. Herklotz, Sitzungsber. Ac. Wiss. Wien, 1864, pp. 38, 39.

Corvus megarrhynchus is described as a new species from Waigiu, but whether really distinct from the *C. fuscicapillus* of Mr. G. R. Gray (P. Z. S. 1859, p. 157) we are unable to decide. If there is no mistake in the dimensions given, it must be a far larger bird than any of the three species mentioned by Mr. Wallace (Ibis, 1863, p. 101), and yet with wings and tail of much the same length as theirs. H. A. Bernstein, Ned. Tijdschr. Dierk. 1864, pp. 323, 324.

COLUMBÆ.

COLUMBIDÆ.

Ptilonopus chrysogaster. The locality of this species, which is closely allied to several others inhabiting the different island-groups of the South Pacific, is ascertained to be Huaheine in the Society Islands. P. L. Sclater, P. Z. S. 1864, p. 9.

Chlorænas vinacea from Panama and Guatemala agrees with a typical example of *C. nigrirostris* (from Mexico?). P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 370.

Columba intermedia harboured in Siamese temples. R. H. Schomburgk, Ibis, 1864, pp. 250-252.

Turtur risorius was met with at Constantinople in the Seraglio gardens. E. C. Taylor, Ibis, 1864, p. 410. (Cf. Degland, Orn. Europ. ii. p. 4.)

Turtur semitorquatus has been received from the Comoro Islands and from Madagascar. P. L. Sclater, Ibis, 1864, p. 300, and P. Z. S. 1864, pp. 487, 488.

Streptopelia barbara is described as a new species from Central Africa, strongly resembling the *Turtur semitorquatus* of Swainson, but distinguishable by the colour of the back and tail. O. Antinori, Cat. Ucc. Afr. centr. p. 89.

Ptilopus ochrogaster is described as a new species from Batchian and other localities about New Guinea. H. A. Bernstein, Nederl. Tijdschr. Dierk. 1864, p. 324.

DIDUNCULIDÆ.

Didunculus strigirostris. Two living examples of this curious form were brought to Sydney, New South Wales, in 1863. One a young bird in immature plumage from the island of Upolu, the other an adult from the island of Savaii—both in the group of Navigators' Islands. The plumage of the young bird is described, and notes on the appearance and habits in confinement of both specimens are given. The old bird died after being kept at Sydney about six weeks. The young one was shipped for England. G. Bennett, P. Z. S. 1864, pp. 139-143; Ann. N. H. ser. 3. xiii. p. 259; *idem*, xiv. p. 454; and E. P. Ramsay, Ibis, 1864, pp. 98-100.

The example sent to England arrived safely (P. Z. S. 1864, p. 158), and lived in the Gardens of the Zoological Society for about five months.

GALLINÆ.

PHASIANIDÆ.

Pucrasia xanthospila is a new species, received at the British Museum from North China, through Sir Frederick Bruce. It is distinguishable from the three known species by the buff space on the sides of the neck, and the distinct markings on the tail and upper parts of the body. G. R. Gray, P. Z. S. 1864, pp. 258-260.

The author likewise mentions the arrival of male and female examples of *Crossoptilon* (lege *Crossoptilum*) *mantchuricum*, which entirely dispel the probability of that species being one of the sexes of *C. auritum*.

Euplocamus praelatus, living in Jardin d'Acclimatation at Paris, L. Fraser, P. Z. S. 1864, p. 159; in Siam, R. H. Schomburgk, Ibis, 1864, pp. 259-261.

Euplocamus swinhoii is figured. J. Gould, B. As. part xvi.

Phasianus pictus obscurus is described as a "*conspecies*" of the well-known *Thaumalea picta*, from which it differs constantly and from its earliest stage, the young when clothed with down being of a reddish-brown, the immature males and adult females being of a deeper tint, especially on the sides of the head and on the breast, and having the auricular region of a uniform brownish-black, while in the adult male the sides of the head and the breast are brown, the frill-feathers are edged with blackish-green, the tail is shorter, and the middle pair of feathers are marked with oblique bands instead of spots. There are also some other variations in the colouring. H. Schlegel, Nederl. Tijdschr. Dierk. 1864, pp. 152-154.

Phasianus soemmeringi. Fourteen living birds of this species were brought to England in June 1864 by Mr. R. Russell, of which two pairs were secured for the Zoological Gardens. P. Z. S. 1864, p. 374.

Numida vulturina has been brought alive from Zanzibar to the Cape of Good Hope. E. L. Layard, Ibis, 1864, pp. 133.

TETRAONIDÆ.

ELLIOT, D. G. Remarks upon a Proposed Arrangement of the *Tetraoninæ* or Family of Grouse, and New Genera added. Proc. Acad. Philad. 1864, p. 23.

Dendragapus is a new generic term proposed for *Tetrao obscurus* and *T. richardsoni*, the characters being the possession of gular sacs, and the presence of twenty instead of sixteen rectrices.

Falcipectus is another new genus founded for the reception of *Tetrao falcipectus*, and *hartlaubii* suggested as a trivial name for that species.

ELLIOT, D. G. A Monograph of the *Tetraoninæ* or Family of the Grouse. New York: 1864, parts i. and ii. Imp. folio.

Part I. contains figures of *Centrocercus urophasianus*, *Dendragapus obscurus*, *Pediæcetes columbianus*, *Canace franklini*, *Bonasa umbelloides*, and *Lagopus leucurus*. Part II. illustrates *Bonasa sabini*, *Canace canadensis*, *Lyrurus tetriz*, *Pediæcetes phasianellus* (*kennicotti*, Suckley), *Bonasa sylvestris*, and *Lagopus scoticus*.

Lagopus albus and *Lagopus scoticus*. The long-pending discussion whether these two birds are to be considered distinct species is still continued.

G. Norman, H. Reeks, E. Newman, J. Cooper, and A. C. Smith, Zool. pp. 8868, 8955, 9044, 9045 and 9113. No new facts of any great importance are adduced by either side.

Lagopus hemileucurus from Spitzbergen (*L. alpina* var. *hyperborea*, Gaimard, descr. nulla) may possibly be identical with *L. rupestris*. A. Newton, P. Z. S. 1864, p. 498.

Lagopus mutus in winter, summer (with young), and autumn plumage forms the subject of three fine pictures from Mr. Wolf's pencil. J. Gould, B. Grt. Br. part vi.

Under the name of *Sterna palustris*, Demeezemaker, a variety, perhaps a local race, of *Perdix cinerea* is treated of. L. Olph-Gaillard. Ibis, 1864, pp. 225-227.

Caccabis petroea has been obtained in the Tuscan Maremma, and *C. græca* is also found in Tuscany. H. Benvenuti, Ibis, 1864, p. 228.

Oreoperdix is a new genus proposed by Mr. Swinhoe for a new Partridge discovered by him in Formosa. It approaches most nearly to *Caccabis*, but differs in having unpurred tarsi, a short tail, and a thick bill.

O. crudigularis is the type species on which the genus is founded. R. Swinhoe, Ibis, 1864, pp. 425, 426.

Bambusicola sonoricox is figured. J. Gould, B. As. part xvi.

Odontophorus guianensis of Lawrence (from Panama) is identified with *O. marmoratus*. P. L. Sclater and O. Salvin, P. Z. S. 1864, p. 371.

Odontophorus melanotis is a new species from Costa Rica, resembling *O. erythropus*, but to be distinguished by the black subocular patch. O. Salvin, P. Z. S. 1864, p. 586.

PTEROCLIDÆ.

Syrnhaptes paradoxus: its habits in captivity, L. Holtz, J. f. O. 1864, pp. 52-58; its occurrence in Wittow and Rügen, *Idem*, op. cit. pp. 58, 59 and 395, 396; in Great Britain, *Idem*, op. cit. p. 60; in Posen, Alexander von Homeyer, op. cit. pp. 61, 62: its habits in captivity, *Idem*, op. cit. pp. 312-314: its occurrence and breeding in Jutland, W. Hintz I., op. cit. p. 68: its occurrence in Pomerania, Wiese, op. cit. pp. 68, 69 (error corrected, p. 69), A. von Homeyer, op. cit. p. 140, W. Hintz I., op. cit. p. 194; in Holland, J. Cabanis, op. cit. p. 69; in Silesia, A. von Homeyer, op. cit. p. 76; on Borkum (third article), B. Altum, op. cit. pp. 97-102 (potius pp. 81-86); near Danzig, Böck, op. cit. p. 140; in Mecklenburg, Von Freen, op. cit. p. 218; in Norfolk and Suffolk, H. Stevenson, op. cit. pp. 297-311 (translated by Dr. Altum from 'Zoologist,' 1863) and Zool. p. 8957; in Germany, E. Opel, J. f. O. 1864, p. 312: its food, F. Schweitzer, op. cit. p. 312: its occurrence and breeding in Denmark, J. Reinhardt, op. cit. pp. 339-352 (translated by Dr. Altum from Vidensk. Meddelels. Kjöbenh. 1863, pp. 213-235), and A. Newton, Zool. p. 8889: its occurrence in Europe, V. Fatio, Rev. Zool. 1864, pp. 122-127; near Metz, E. de Saultcey, op. cit. pp. 127, 128; in Wiltshire, A. C. Smith, and in Shetland, H. L. Saxby, Zool. p. 8888; in Caithness, H. Osborne, op. cit. p. 8889; in Cheshire, T. J. Moore, loc. cit., and J. Cooper, op. cit. p. 8958; in Moray, G. Gordon, op. cit. p. 8889: in Ireland, Lord Clermont, op. cit. p. 8934; in Somerset, V. R. Perkins, op. cit. p. 8957; in Devon, J. L. L. Fulford and M. A. Mathews, op. cit. p. 8958; near Dor-

noch, *T. Mackenzie*, *op. cit.* p. 8959; in France and Germany (with remarks on its affinities), *L. O. Gaillard*, *Ibis*, 1864, pp. 129, 130; in Italy, *T. Salvadori*, *op. cit.* pp. 228, 229; in Belgium, *E. de Selys Longchamps*, *Bull. Acad. Belg.* 1864, pp. 22-25; in Northumberland and Durham, *J. Hancock*, *Trans. Tyne-side Nat. Field Club*, 1864, pp. 100-103; in Norway, *R. Collett*, *Nyt Mag. Naturvid. For. Christiania*, iii. part 3, pp. 176, 177.

NEWTON, A. The Irruption of *Syrrhaptēs paradoxus* (with a map, plate vi.). *Ibis*, 1864, pp. 185-222.

The author, after referring to the bibliography of the species, quotes Radde's experience of it in South-eastern Siberia (*Bericht über Reisen in Süden von Ost-Sibirien*, pp. 373-417), to prove that *Syrrhaptēs* is subject to sudden and almost capricious movements on a very large scale, which he thinks may help to explain the remarkable visitation of 1863. He then shows that the records stating that it appeared in Europe between 1859 and 1863 are erroneous, and compiles, from various sources, information respecting the bird's appearance in 148 European localities, in the year last named, from Galicia to Donegal, and from Gascony to the Færoes. The earliest date given is 6 May in Moravia; by the end of that month the furthest point towards the north-west had been reached. The main body does not seem to have reached England, a flock of about 100 being the largest recorded as observed in this country, while several bands of at least as many continued to haunt various places on the Continent. At the beginning of October between 150 and 200 were seen in Rügen flying towards the south-east, and probably making for the land of their birth. The strength of the invading force is estimated at not less than 700. In Jutland and Holland they bred. After considering and rejecting the various causes assigned by different writers as likely to have produced this movement, the author states his belief that it was merely the natural overflow of the population of *Syrrhaptēs* resulting from its ordinary increase, and that the immigrants were seeking new settlements. The species first got its foot in Europe in 1853; in 1859 it came again; and in 1863, owing to the same increasing pressure from within, still more start and come still further. If this hypothesis be correct, another outpouring may be safely predicted. The conclusion of the article strongly condemns the wanton slaughter of these volunteers for acclimatization.

MEGAPODIIDÆ.

Megapodius pritchardi is a new species from the island of Nina Fou. G. R. Gray, *P. Z. S.* 1864, p. 41, pl. vi., and *Ann. & Mag. N. H.* ser. 3. vol. xiv. p. 378. Mr. Gray adds to his account of this bird a list of the twenty-one species of this family known to him, of which there are specimens of eighteen in the British Museum.

TINAMIDÆ.

PARKER, W. K. On the Osteology of Gallinaceous Birds and Tinamous. (See under heading "Descriptive Anatomy.")

GRALLÆ.

RALLIDÆ.

Porphyrio martinica (P). The so-called "Carpenter Coot" has generally been considered to be the young of this species, but it is stated that the nestlings are quite different. W. T. March, Proc. Acad. Philad. 1864, p. 69.

Porzana maruetta (with young), *P. mimda* and *P. pygmæa* are figured. J. Gould, B. Grt. Br. part vi.

SCOLOPACIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-bas. 5^{me} et 6^{me} Livraisons. *Scolopaces*. Leyde, 1864. Royal 8vo, pp. 102.

This portion of the Catalogue of the Leyden Muséum being still unfinished, it is only needful for us here to say that the parts published contain the genera *Scolopax* and *Gallinago*, *Rhynchæa*, *Prosobonia*, *Limosa*, *Tringa*, *Phalaropus*, *Totanus*, *Actitis*, and *Numenius*. We reserve for the completion of the group further remarks upon it. Compelled as we are in some cases to differ widely from Professor Schlegel's opinions, it is right for us to mention the great care with which his most useful catalogues are drawn up, and to acknowledge that it is, in the present state of our science, far better to reduce than to multiply the number of genera and species, when this can be safely done.

COINDE, J. L. Note pour servir à l'histoire des Oiseaux insectivores. Rev. Zool. 1864, pp. 5, 6.

The communication records some cursory observations on the diet of a bird belonging "à la famille des échassiers riverains du genre chevalier." The species is not determined.

Gallinago megala (Ibis, 1861, p. 343) from China and Formosa tallies well with the description of *G. solitaria* from Japan, and may be identical with it. R. Swinhoe, Ibis, 1864, p. 370.

Ereunetes occidentalis is described as a new species from the west coast of North America, differing from *E. pusillus* in the greater amount and brightness of the chestnut on the upper parts, but most conspicuously in the more decided spotting of the breast and sides. The bill also appears on an average to be longer, and the tarsi and toes are jet-black. *E. mauri* from Cuba agrees precisely with *E. pusillus*. G. N. Lawrence, Proc. Acad. Philad. 1864, pp. 107, 108.

Micropalama taeksanowskii is identical with *Macrorhamphus semipalmatus*. T. C. Jerdon, B. India, iii. p. 680.

Numenius rufescens is figured. J. Gould, B. As. part xvi.

CHARADRIIDÆ.

Recurvirostra avocetta with young is figured. J. Gould, B. Grt. Br. part v.

Streptilas interpres is stated to breed in Jamaica, at the seaside, on the plains and in the mountains. So far as a description of the appearance of the eggs found can be depended upon, they would seem to tally with those which have been hitherto brought only from comparatively high northern latitudes; but nothing is said to show whether or not the Jamaican specimens have been fully identified as belonging to this species. W. T. March, Proc. Acad. Philad. 1864, p. 66.

Charadrius plumialis in summer (with young) and winter is figured. J. Gould, B. Grt. Br. part v.

Hemerodromus cinctus has been obtained in the Bari Negro-land in Central Africa. A. von Pelzeln, Ibis, 1864, p. 231. On Mr. Blyth's authority it is stated that this bird certainly belongs to the genus *Rhinoptilus*. T. C. Jerdon, B. India, iii. p. 629.

OTIDIDÆ.

Otis denhami seems to have occurred in the Djour-country. T. von Heuglin, J. f. O. 1864, pp. 272, 273.

Otis tarda, with young, and *O. tetraz* are figured. J. Gould, B. Grt. Br. part v.

GRUIDÆ.

HOMEYER, EUGEN VON. Ueber die Rückenfärbung des brütenden Kranichs. J. f. O. 1864, pp. 337-339.

Remarks on Conservator Meves's paper on the same subject (Cefvers. K. Vet.-Akad. Förh. 1860, p. 218; J. f. O. 1862, pp. 132, 133). The staining of the feathers in *Grus cinerea* is not accidentally caused; the author has observed the bird trimming its plumage, and anointing them with peat-soil.

ARDEIDÆ.

Garzetta nivea is stated to be distinct from *Florida carulea*, of which it has been generally supposed to be the immature; but further evidence is required to establish its specific value. W. T. March, Proc. Acad. Philad. 1864, p. 63.

Ardea occidentalis is still considered distinct from *Herodias egretta*; but the specific (not to say generic) characters are exactly contrary to those given as diagnostic by Prof. Baird (B. N. Am. p. 670)! W. T. March, Proc. Acad. Philad. 1864, p. 63.

Ardea wuerdemanni is considered by the fishermen and gunners of Jamaica to be the male of *A. herodias*. They are probably right, but their view of the case is controverted. W. T. March, Proc. Acad. Philad. 1864, pp. 63, 64.

Butorides brunnescens, if distinct from *B. virescens*, has not been recognized in Jamaica, though supposed to be found there. W. T. March, Proc. Acad. Philad. 1864, p. 64.

Nycticorax griseus. Notice of a colony on the Seeburger-See in Hanover. B. Wicke, Journ. f. Orn. 1864, pp. 77-80. Its occurrence in Sweden. F. Wahlgren, Cefvers. K. Sv. Vet.-Akad. Förhandl. 1864, p. 77.

Botaurus stellaris, with young, is figured. J. Gould, B. Grt. Br. part vi.

CICONIIDÆ.

Ciconia pruyssenaeri is described from the marshes of the Req-negroes (Central Africa). T. von Heuglin, J. f. O. 1864, p. 275, and Ibis, 1864, p. 490.

Platalea major varies extremely in size. R. Swinhoe, Ibis, 1864, pp. 364-370.

TANTALIDÆ.

Ibis strictipennis. Examples supposed to belong to this species have been obtained from the north coast of Ceram, and the east of Salawatty, New Guinea. G. von Rosenberg, J. f. O. 1864, pp. 136, 137.

Eudocimus albus (?) is stated to have "the power of inflexing the upper bill, so as to run it along the groove of the lower mandible, and clean out whatever may be adhering there." R. Hill, Proc. Acad. Philad. 1864, p. 65, note. Further on (p. 68, note) the same naturalist expresses a doubt whether the bird to which this extraordinary power is ascribed is not a *Numenius*.

PALAMEDEIDÆ.

Chauna nigricollis is a third species of the genus from New Granada, in its distinct white throat and black neck agreeing with *C. derbiana* from Guatemala, but in general coloration approaching *C. chavaria* from Brazil. The author gives diagnoses of the three known species. Several living specimens of the newly described species were presented to the Zoological Society in 1863 by Mr. Greey. P. L. Sclater, P. Z. S. 1864, pp. 74-76. pl. xi.

PARKER, W. K. On the Systematic Position of the Crested Screamer (*Palamedea chavaria*) [lege *Chauna nigricollis*]. Ann. & Mag. Nat. Hist. 3 ser. xiv. pp. 144-150. (From P. Z. S. 1863, pp. 511-518.)

From his examination of the skeleton, but chiefly relying on the bones of the head and wings and the number of the caudal vertebræ, the author comes to the conclusion that the bird "may be a very *lucertian* Goose," and further states that "there are parts of its organization which make it very probable that it is one of the nearest living relatives of the marvellous *Archæopteryx*."

AVIS INCERTÆ SEDIS.

Rhinocetus jubatus, G. Bennett, Ann. & Mag. N. H. 3 ser. xiii. pp. 342, 343 (from P. Z. S. 1863, pp. 386, 386), and *op. cit.* xiv. pp. 141, 142 (from P. Z. S. 1863, pp. 439, 440). A few short observations on this curious form. The female is much larger than the male. They are becoming scarce in New Caledonia. M. F. Joubert informs the author that there are two kinds, which he designates as the "Bush-Kagu" and the "Grass-Kagu."

The abstract of Mr. Parker's paper on the Osteology of this bird will be found noticed under the heading 'Descriptive Anatomy.'

ANSERES.

ANATIDÆ.

Cygnus olor (?). Cygnets clad in down, obtained in the Dobrudscha, July 1863, by Herr Zelebor, are doubtfully referred to this species. A. von Pelzeln, Journ. f. Orn. 1864, p. 71.

Cygnus olor and *C. musicus* are figured. C. J. Sundevall, Sv. Fogl. pl. lvi.

Anser brachyrhynchus is the large species of Goose frequenting Spitsbergen, which has been taken to be *A. segetum* by Malmgren (Öfvers. K. Vet.-Akad. Förh. 1863, p. 107), and *A. cinereus* by Torell (*op. cit.* p. 115) and Evans and Sturge (Ibis, 1859, pp. 171, 172). A. Newton, P. Z. S. 1864, 498.

Anser cinereus and *A. segetum* are figured. C. J. Sundevall, Sv. Fogl. pl. lvi.

Anser albifrons, *A. minutus* (sc. *erythropus* (Linn.)), *A. leucopsis*, and *A. torquatus* are figured. C. J. Sundevall, Sv. Fogl. pl. lvii.

SCLATER, P. L. Notes on the Species of *Tadorna* living in the Society's Gardens. P. Z. S. 1864, pp. 189-192.

A diagnostic list, with full notes, of the six known species of the genus—in which the author includes *Casarca*—is given, as well as figures of *T. tadornoides* and *T. variegata* (plates xviii. and xix.), the imperfections of former illustrations of these two species being commented upon. The rare *Anas navosa*, Gould, considered to be a *Tadorna* by some naturalists, is not so regarded by Dr. Sclater.

SCLATER, P. L. Note on the Geographical Distribution of the Ducks of the Genus *Dendrocygna*. P. Z. S. 1864, pp. 299-301.

A synonymic list, with full notes of the eight species known to the author, two of which—" *D. guttulata*, Müll. MS." and *D. vagans*, Eyton, are probably still undescribed. There are examples of the first in the British Museum and in Mr. Wallace's collection. Two other apparent species, *D. fulva* and *D. virgata*, not yet met with by Dr. Sclater, are also referred to. *D. viduata*, which is found both in Africa and South America, is suggested to have been introduced into the latter country by the early slavers. The Madagascar species is identical with *D. major* of India, and not, as heretofore believed, *D. arcuata*.

Anas melleri is described as a new species from Madagascar, belonging to that section of the group of true *Anas* in which the sexes are alike. It is the *A. xanthorhynchus* of Mr. Edward Newton (Ibis, 1863, p. 174), but not of Forster. P. L. Sclater, P. Z. S. 1864, p. 487. pl. xxxiv.

Anas maxima of Gosse, whether a hybrid or a variety of *A. boschas*, is stated to be a permanent resident in Jamaica. Some very inconclusive evidence afforded by certain eggs is adduced as bearing upon the point. W. T. March, Proc. Acad. Philad. 1864, p. 71.

Anas tadorna, *A. boschas*, *A. penelope*, and *A. clypeata* are figured. C. J. Sundevall, Sv. Fogl. pl. lviii.

Anas acuta, *A. querquedula*, and *A. crecca* are figured. C. J. Sundevall, Sv. Fogl. pl. lix.

Cairina moschata. The English name of this species is said to have been corrupted from that of the "Muysca" Indians, whence is derived Musco or Muscovy Duck. W. T. March, Proc. Acad. Philad. 1864, p. 72.

Hybrids between *Anas boschas* and *A. crecca*, *A. acuta* and *A. penelope*, *A. sponsa* and *A. boschas* (var. *domestica*), and *A. galericulata* and *A. boschas*

(var. *domestica*) are described. J. P. van Wickevoort Crommelin, Nederl. Tijdschr. Dierk. 1864, pp. 294-297.

Nyroca leucophthalma is stated to have occurred in Jamaica, but to be very rare there. Probably some other species has been mistaken for this bird. W. T. March, Proc. Acad. Philad. 1864, p. 72.

Fulix (sc. *Somateria*) *mollissima* and *F. spectabilis* are figured. C. J. Sundevall, Sv. Fogl. pl. lx.

LARIDÆ.

COUES, ELLIOTT. Notes on certain Central-American *Laridæ*, collected by Mr. Osbert Salvin and Mr. F. Godman. Ibis, 1864, pp. 387-393.

Three species of *Larinæ* and twelve of *Sterninæ* (one being doubtful) are critically treated of.

Gygis —. What appears to be a new species from the Feejee Islands is characterized but left unnamed by G. Hartlaub, Ibis, 1864, p. 232.

Chroicocephalus tibetanus. A fine and apparently new species, brought from Tibet by Major Hay. J. Gould, P. Z. S. 1864, p. 54; Ann. & Mag. N. H., ser. 3. xiv. p. 379.

Rhodostethia rossi has occurred in the Færoes. J. C. H. Fischer, Krøy. Naturh. Tidsskr. 1864. (Cf. Ibis, 1865, pp. 103, 238.)

Stercorarius pomatorhinus, its autumnal migration southward in Ireland. R. Warren, jun., Proc. N. H. Soc. Dublin, iv. pp. 3-5, J. Kinahan, *ibid.* p. 9, and J. C. Neligan, *ibid.* p. 40.

PROCELLARIIDÆ.

COUES, ELLIOTT. A critical Review of the Family *Procellariidæ* [lege *Procellariidæ*]: Part I., embracing the *Procellariæ* or Stormy Petrels. Proc. Acad. Philad. 1864, pp. 72-91. Part II., embracing the *Puffinæ*. *Ibid.* pp. 116-144.

The author divides the *Procellariidæ* into three subfamilies, which he calls *Diomedeinæ*, *Procellarinæ*, and *Halodrominæ*; in the first the nasal tubes are entirely disconnected and placed one on each side of the bill, in the second they are united, and open more or less horizontally forwards, in the third their apertures are directed vertically upwards. Dr. Coues further divides the *Procellariinæ* into five divisions, termed *Fulmaræ*, *Daptionæ*, *Prionæ*, *Puffinæ*, and *Procellariæ*; these last he separates into two groups, to which no names are assigned. The first contains four genera: *Oceanodroma*, with *P. furcata* of Gmelin as its type; *Cymochorea*, equivalent to *Thalassidroma* of authors (which name is altogether dropped as being synonymous with *Procellaria* proper of Linnæus); *Halocyptena* for the reception of a single and hitherto unknown species; and *Procellaria* as restricted by Bonaparte. The second group is composed of *Oceanites*, *Fregetta*, and *Pelagodroma*. As might be expected, these so-called genera approach each other so nearly,

as not to be defined except at a very great expenditure of words, and it is utterly impossible in a small space to attempt to give a notion of their asserted characters.

Cymochorea homochroa is described by Dr. Coues as a new species from the Farallone Islands, Pacific Coast of North America, not very much unlike *C. melania*, but much smaller, and entirely brownish-black with a cinereous tinge. One of the type-specimens has been figured (Atlas B. N. A. pl. 99. fig. 2) as *Thalassidroma melania* (*loc. cit.* pp. 77 & 90).

Halocrypta microsoma is described by the same author as the type species of his new genus (noticed above) from the Farallone Islands, Pacific Coast of North America. In one place Dr. Coues says, "It is the smallest known Petrel," but in another that it "hardly exceeds in size the little *G. [?] pelagica*!" entirely fuliginous black, length of wing 4.75 inches! (*ibid.* pp. 79 & 90).

In his second paper Dr. Coues regards the *Puffinæ* as composed of five genera, *Majaqueus*, *Adamastor*, *Thiellus*, *Nectris*, and *Puffinus*; it is satisfactory to learn that he thinks the further subdivision of *Puffinus* into *Ardenna* and *Priofinus* "quite unwarrantable." The five genera adopted are characterized with as much minuteness as those in the former paper. The whole of this paper is drawn up with the singular amount of patient investigation which distinguishes Dr. Coues's 'Reviews' of perplexing groups; and the present writer can but regret he is obliged to withhold his assent to many of the views maintained in it.

Nectris amaurosoma is described as a new species from Cape San Lucas, having the bill of the same colour as the plumage, the feet fleshy-white, outer side of tarsus and outer toe tinged with dusky, lower wing-coverts mostly white (*loc. cit.* pp. 124 & 143).

Puffinus creatopus is described from the MS. of Mr. J. G. Cooper as a new species from San Nicholas Island, California, with the general aspect of *P. major*, but having flesh-coloured feet, and other distinguishing points (*ibid.* pp. 131 & 144).

Puffinus opisthomelas is described as a new species from Cape San Lucas, generally like *P. obscurus*, but larger and, among other differences, with almost all the under tail-coverts and axillaries fuliginous black (*ibid.* pp. 139 & 144).

Thalassidroma melitensis of Schembri is only *T. pelagica*, the variations in the white markings of the tail-feathers being observable in specimens from other parts of Europe. C. A. Wright, *Ibis*, 1864, p. 154.

Thalassidroma — (sp. innom.) digs its breeding-holes itself in the ground, using its bill as a pickaxe, and throwing behind it the loose earth with its feet. J. Ambrose, *Trans. Nov. Scot. Inst. Nat. Sc.* 1864, pp. 34-37.

PELECANIDÆ.

Graculus (sc. *Phalacrocorax*) *carbo* and *G. cristatus*, and *Dysporus* (sc. *Sula*) *bassana*, are figured. C. J. Sundevall, *Sv. Fogl. pl.* lv.

PODICIPIDÆ.

Podiceps, sp.? The sacred bird (reported to be wingless) of the Lake Zalanza in Joanna, one of the Comoro islands, proved to be of this genus, but the species was not ascertained. P. L. Sclater, *Ibis*, 1864, p. 301.

Podiceps cristatus, *P. rubricollis*, *P. auritus* of Linnæus, and *P. minor* are figured. C. J. Sundevall, *Sv. Fogl. pl. liv.*

COLYMBIDÆ.

Colymbus torquatus (sc. *glacialis*) and *C. adamsi*. Crania of these two birds compared and their specific distinctness thereby more completely substantiated. E. Coues, *Proc. Acad. Philad.* 1864, pp. 21, 22.

Colymbus septentrionalis, *C. arcticus*, and *C. glacialis* are figured. C. J. Sundevall, *Sv. Fogl. pl. liii.*

ALCIDÆ.

Alca impennis,—Natural Mummies, A. Newton, *Ann. N. H.* 3 ser. xiv. pp. 138–141, *Zool.* pp. 9122–9124 (from P. Z. S. 1863, pp. 435–438), J. E. Gray, *Ann. N. H.* 3 ser. xiv. p. 319. List of existing specimens, R. Champley, *op. cit.* pp. 235, 236; Defects in Mr. Champley's List, P. L. Sclater, *op. cit.* p. 350, A. von Pelzeln, and Eds. *Ann. N. H. op. cit.* p. 393.

STRUTHIONES.

STRUTHIONIDÆ.

Struthio camelus, the skin of a specimen killed in the Belka (Palestine) was obtained by H. B. Tristram, *P. Z. S.* 1864, p. 449.

Casuarus kaupi. Some further particulars respecting this bird are given by its discoverer, G. von Rosenberg, *J. f. O.* 1864, p. 134.

Casuarus bennetti. Recently hatched specimens of this species, and the skeleton of the typical example, were exhibited to the Zoological Society. P. L. Sclater, *P. Z. S.* 1864, p. 271.

Dinornis robustus. One of the most remarkable ornithological events of the past year was the exhibition by Mr. Thomas Allis of the very recent remains of a Moa, at the meeting of the Linnean Society on the 16th of June, 1864. (*Proc. Linn. Soc.* vol. viii. p. xlv.) The paper read by that gentleman has not, however, yet been published. An abstract of its contents is given in 'The Natural History Review' (1864, page 636), and also in 'The Zoologist' (pages 9195–9197). The skeleton is described as being very nearly perfect. The left inner toe (that which in *Casuarus* is armed with a very long claw) "has the whole of the outer sole still adhering to it, as well as part of the sole of the foot. On the lower part of the back is still a considerable portion of the outer skin studded with the quill part of the feathers, and in one or two rare instances portions of the web of the feather." These feathers we understand are of the duplex type common to the section *Casuarinae*, i. e. the aux-
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iliary plume nearly equals the feather itself. The remains were found in a sand-hill about 100 miles from Dunedin in the Middle Island. Underneath them were eggs, as if the bird had been incubating at the time it was overwhelmed by a sand storm; and hence the probability is that it was of the male sex. Bones of five individual embryos were sent home with those of the parent. The specimens are in the Museum of the Yorkshire Philosophical Society at York, and an excellent series of photographs of them has been published. The species to which the bones are referred is said to be *D. robustus*. The specimens are placed at Prof. Owen's disposal for description (P. Z. S. 1864, pp. 648, 649).

Dromæus irroratus. Some notes on this bird breeding in confinement: W. Bennett, Zool. pp. 9200-9206.

ROWLEY, GEORGE DAWSON. A Paper upon the Egg of *Epyornis maximus*, the Colossal Bird of Madagascar. London, 1864. 8vo, pp. 15.

The author somewhat minutely describes a specimen of the egg of this remarkable bird, which is stated to have been found at "Mananzari," on the east coast of Madagascar, at a depth of 45 feet, in a hill of ferruginous clay, and sent to Mauritius in 1858. It was subsequently exhibited in the International Exhibition of 1862, and he is now the possessor of it. Its major axis is $12\frac{1}{4}$ inches, minor axis $9\frac{1}{8}$ inches, great circumference $34\frac{3}{4}$ inches, small circumference $29\frac{1}{4}$ inches, and weight nearly 3 lbs. $11\frac{1}{2}$ oz. avoirdupois. It would therefore seem to be intermediate in size to the two well-known specimens in the Museum at Paris. Mr. Rowley strives to show that the bird must have exceeded in bulk the largest species of *Dinornis*, and cites much of the information respecting *Epyornis* which had been previously published by Isidore Geoffroy St.-Hilaire and Professor Owen.

APTERYGIDÆ.

Apteryx mantelli. A second living example of this species has been presented to the Zoological Society, and placed along with the female bird received in 1851, which still continues in good health. P. Z. S. 1864, pp. 374, 375.

AVES.

A V E S

BY

ALFRED NEWTON, M.A., F.L.S., etc.

It is hoped that the present 'RECORD' will be found in all respects more perfect than its predecessor. Though its completion has been deferred until the last moment possible, several parts of journals which have a claim to notice in it, as being professedly published in the past year, have not yet reached our hands. Among these may be specified the 'Revue et Magasin de Zoologie,' of which we have not been able to see the numbers for November and December last, and the 'Journal für Ornithologie,' the concluding *Heft* of which, we believe, has not yet appeared, though when it is published it will doubtless bear the date, November 1865, at which it ought to have been issued. That the study of Ornithology is being most actively pursued a very cursory inspection of our 'Record' will show; the necessity, therefore, of some such annual summary as is here given becomes year by year greater. In its compilation we have endeavoured, as before, to do justice equally to the authors from whose works it is drawn and to the public for whose use it is designed; and thus, with our sincere thanks to the many good friends, both at home and abroad, to whom we are especially indebted for assistance, we leave it to the kind consideration of our brother ornithologists.

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HARTLAUB, GUSTAV. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1864. Archiv für Naturgeschichte, Jahrgang xxxi. Band ii. pp. 28. Berlin : 1865.

We observe with pleasure that many of the opinions expressed by ourselves in the 'Record' for last year are confirmed by Dr. Hartlaub in this "Report," which goes over the same ground. Though not entering so much into details as our own work, the general features of ornithological progress in the year 1864 are sketched in a masterly manner. The author observes with regret that his countrymen appear to have a tendency to confine their researches to European ornithology, and consequently to be neglecting the

ornithology of other parts of the globe, a subject in which they have hitherto so much distinguished themselves; but the following pages will, we fear, from the disproportionately long list of publications relating to the Palearctic Region, show that this tendency is not exclusively confined to the ornithologists of Germany. Dr. Hartlaub, however, prefixes to his "Report" fewer general observations than usual, and these do not seem to require any detailed notice on our part. It is almost needless to add that the work is compiled with its author's accustomed ability.

FINSCH, O. Index ad Caroli Luciani Bonaparte Conspectum Generum Avium. Lugd. Batav.: 1865. Roy. 8vo, pp. 23.

The titlepage of this publication fully explains its scope; its utility will be self-evident to every working ornithologist. It is only to be regretted that it was not extended so as to contain every name, whether generic or specific, mentioned in the 'Conspectus,' instead of being limited to the genera therein adopted, and the species described or named by Bonaparte. It has been most accurately compiled. (Cf. Journ. für Orn. 1864, p. 466; Ibis, 1865, p. 532.)

SUNDEVAL, C. J. Les Oiseaux d'Afrique de Levaillant, critique de cet ouvrage. Trad. du Suédois par LÉON OLPH GALLIARD. Rev. et Mag. de Zool. 1865, pp. 153-159, 192, 209-212, 249-254, 279-285, 323-329.

The original of this able paper appeared some years ago in the Transactions of the Stockholm Academy (Vet. Akad. Handl. ii. no. 3), before which it was read in 1857! M. Galliard, however, has certainly conferred a benefit on those ornithologists to whom the introductory part, written in the Swedish language, was inaccessible. At present, however, he has not half got through his task. (Cf. Ibis, 1859, pp. 324, 325.)

THE GENERAL SUBJECT.

FITZINGER, LEOP. JOS. Ueber das System und die Charakteristik der natürlichen Familien der Vögel. Sitzungsber. der Kaiserl. Akad. der Wissensch. Wien, 1865, pp. 285-322.

This is the third and concluding portion of the author's paper. The first appeared in the same journal for 1856, and comprised, according to his classification and nomenclature, the orders *Psittacini*, *Raptatores*, *Nocturni*, *Scansores*, and *Ambulatores*, the latter being further divided into suborders, of which two, *Gressorii* and *Conirostres*, were then included. The second portion, in the volume for 1862 (pp. 194-240), treated of the remaining suborders of *Ambulatores*—*Uncirostres*, *Coracirostres*, *Subul-*

rostris, and *Tenuirostris*, and the order *Hiantes*. The portion we have to deal with includes the orders *Columbini*, *Cracini*, and *Gallinacei*, grouped in a "Reihe" as *Rasores*, the orders *Cursorii*, *Gallinogallæ*, and *Herodiæ* similarly grouped as *Vadantes*, and *Natatores* comprehending the orders *Anserini*, *Macropteri*, and *Peropteri*. Dr. Fitzinger further divides his orders into families (of which he gives the characters at some length), genera, and, we imagine, subgenera, and appends to each of the last the name of the type-species. Classification, in ornithology at least, is, now-a-days, so much a matter of opinion, that it hardly seems necessary for us to pass judgment upon Dr. Fitzinger's. We have briefly indicated its chief peculiarities.

HUTTON, F. W. Notes on some of the Birds inhabiting the Southern Ocean. *Ibis*, 1865, pp. 276-298.

These valuable notes are the results of personal observations made during seven voyages round the Cape of Good Hope, and from information obtained by the author's friends. They refer to *Chionis minor*, *Lestris catarrhactes*, and many species of *Procellariidæ*. The inordinate number of ocean-birds found in cold regions may be accounted for by the fact that the lower plants, and consequently the lower animals, are there more abundant. Captain Hutton then notices the phenomenon of representative species in the two hemispheres, and considers it probable that the northern species crossed the equator from the south during a glacial period, after which they have varied through isolation. The form of the beak in the *Procellariidæ*, he thinks, marks their close resemblance to, and perhaps their descent from, the *Lestres*. Their prolonged nostrils he considers due to the fact of all crepuscular birds having some organs more highly developed than usual, and the species which take their prey under water have the tubes not so prolonged. The author's experience is against the belief that birds follow ships incessantly for very great distances. He then passes on to consider the manner of flight in *Diomedea*, and differs from the opinion uttered by Dr. Bennett on that subject. The act of "sailing," in particular, is performed by the bird's momentum, acted upon by the wind according to known mechanical laws. (Cf. *Ibis*, 1865, p. 527.)

JAECKEL, JOH. Ueber Schnabel-Missbildungen verschiedener Vögel. *Zool. Garten*, 1865, pp. 133-138, and 175-179.

The first article consists of a list of nineteen species in which malformation in the bill of birds has been observed, with references to the authors by whom the instances have been recorded. In the second the author endeavours to account for the origin of these monstrosities.

LIAIS, E. On the Flight of Birds and Insects. *Ann. & Mag. Nat. Hist.* 3rd ser. xv. pp. 155–158. (Translated from *Comptes Rendus*, 1864, p. 907.)

The author considers three cases:—(1) Flight without locomotion; (2) Flight with locomotion and beating of the wings; (3) Flight without beating of the wings, or Gliding Flight. This third mode presupposes a previous locomotion, produced by beating of the wings. The whole matter seems to be left very nearly as it was before.

MILNE-EDWARDS, H. Rapport sur quelques acquisitions nouvelles faites par la galerie ornithologique du Muséum. *Nouv. Arch. du Mus. Bulletin*, pp. 75–78, pls. iii.–v.

This report contains an indication of a new species of *Polyplectrum*, and descriptions and figures of five other new species, *Gecinus erythropygius*, *Capito quanticolor*, and *Buthraupis edwardsi* by Mr. D. G. Elliot, and *Turdus goudoti* and *Sitta villosa* by M. Jules Verreaux.

PARKER, W. K. Preliminary Notes on some Fossil Birds from the Zebbug Cave, Malta. *Proc. Zool. Soc.* 1865, p. 752.

The specimens found are assigned to *Cygnus falconeri* (a gigantic new species), *C. olor*?, *C. bewicki*?, and a *Bernicla* or large *Anas*.

PELZELN, AUGUST VON. Reise der österreichischen Fregatte *Novara* um die Erde in den Jahren 1857, 1858, 1859, u. s. w. *Zoologischer Theil. Erster Band. Vögel.* Wien: 1865. 4to, pp. 176, tabb. 6.

The course of the Austrian frigate 'Novara,' on this voyage, was from the Mediterranean to Rio Janeiro, touching at Madeira, thence to the Cape of Good Hope and St. Paul's Island; after that to Ceylon, the Nicobars, Malay Archipelago, and China, then touching at the Ladrone and Caroline Islands (Puynipet) to Australia and New Zealand; thence across the Pacific, visiting the Society Islands, Pitcairn, Mitchell's Islands, and Juan Fernandez, to Valparaiso, and so home round Cape Horn. Collections were not only made throughout this long voyage by the zoologist on board, Herr Zelebor, but at several of the places visited collections more or less extensive were also procured from residents interested in science; so that the present work contains enough to make the cruise of the 'Novara' for ever memorable in the annals of zoology. In the introduction the author suggests the expediency of forming the ocean south of the tropic of Capricorn into a new zoological region, in addition to the well-known six shown to exist by Mr. Sclater (*Proc. Linn. Soc., Zoology*, ii. p. 180), and adopted in this 'Record,'

grounding his opinion chiefly on the fact of the members of the genus *Chionis* and of the yellow-hooded group of *Eudyptes* being confined within that limit. Herr von Pelzeln includes also some general remarks on the changes and variations observed in the plumage of many of the *Falconidae*, which have since been extended and contributed to another publication. (They are further noticed under the heading "Pterylography.") He has also some remarks on the geographical distribution of *Accipitres*. The new species described are *Micrastur macrorhynchus*, *Gerygone aucklandica*, *Mecistura swinhoii*, *Volvocivora schierbrandi*, *Carpophaga frauenfeldi*, and *Aramides zeledoni*; but observations on upwards of 700 species of all orders and from all regions (exclusive of those mentioned in the pterylogological dissertation) are introduced, which alone makes the work one of great importance. The true habitats of several rare birds are now for the first time determined with precision, and the eggs of sixteen species are figured. (Cf. *Ibis*, 1866, pp. 115, 116.)

PUCHERAN, —. Indications que peut fournir la Géologie pour l'explication des différences que présentent les Faunes actuelles. *Rev. et Mag. de Zoologie*, 1865, pp. 9-15, 33-40, 65-74, 97-115, 161-170, 193-197, 225-240, 289-295.

This series of papers (still, so far as we know, unfinished) is in the form of a letter to Prof. d'Archiac; and from the well-known reputation of the author as an ornithologist, the fact may be at once inferred that a great many of his inferences are drawn from the class *Aves*. The first question to which Dr. Pucheran turns his attention is to decide whether the harmony existing between "Desert-species" and the places they occupy has been pre-established or post-established. Finding (1) that the Great African Desert is by geology proved to have been an arm of the sea, and (2) that the forms inhabiting it are represented in the bordering districts by others only a little differing in coloration, he comes to the conclusion that the harmony is post-established. The next question is as to the mode whereby this harmony, which in birds seems confined to coloration, is produced; and the author appears to consider contact with the soil a sufficient cause, though one particular case which he cites, that of the rufescence of specimens of *Gypaetus* from Algeria (cf. *Ibis*, 1859, p. 85, and F. W. Meves in *Cefvers. Vet.-Akad. Förh.* Stockholm, xvii. p. 487), shows that the change of hue thus acquired is merely superficial, and therefore not really in point. Dr. Pucheran then proceeds to enter upon the subject of the distribution of species, and propounds the question as to the basis that should justify a zoologist in considering any particular region to possess a special fauna. On this point he is of opinion that mere differences of species are insufficient, but that differences of genera, if not of families, are required; and accordingly

he is doubtful whether Africa can be looked upon as having a special ornithological fauna, since out of more than forty families of birds therein found, two only, the *Musophagidae* and the *Struthionidae* (?) are peculiar to it. On the other hand, Dr. Pucheran regards Madagascar, South America, and Australia, with many of the Polynesian archipelagos, as forming indubitable centres of creation. The peculiarities of the South American ornis are then concisely stated, and after a digression on mammals the proposed division of the country by Lafresnaye (R. Z. 1845, pp. 81-92, 113-119) into two provinces, the Brazilian and Colombian, which further south become the Guaranian and Patagonian. The author then arrives at the conclusions (1) that the characters which serve to distinguish species offer numerous and frequent variations in the American fauna, and (2) that south of the Isthmus of Panama a certain number of provinces can be laid down, each having a special ornis. After a few remarks on these conclusions, the series of articles, so far as we have seen it, concludes; the learned author would, however, have done well to have cited some of the works of other ornithologists who have written on the same subjects. (Cf. Sclater, Proc. Linn. Soc., Zool. ii. p. 130, and Tristram, Ibis, 1859, p. 429.)

SALVADORI, TOMMASO. Intorno ad alcune Specie nuove o poco conosciute d'Uccelli del Museo di Torino. Note ed Osservazioni. Atti della Società Italiana di Scienze Naturali, vol. vii. Seduta del 4 Settembre 1864 a Biella.

These notes and observations refer chiefly to species of *Turdidae*, *Cotingidae*, *Tyrannidae*, *Formicariidae*, and *Oriolidae*, to which heads the reader is referred for details. Seven species are described as new.

SCHLEGEL, H. Observations Zoologiques. I. Nederlandsch Tijdschrift voor de Dierkunde, 1865, pp. 181-213. II. *Op. cit.* pp. 249-258.

These articles contain countless important facts and opinions, chiefly ornithological, of which it is impossible here to give more than the very briefest summary; and the task of doing this is increased by the author's plan of seldom citing sufficiently the works in which the old species concerned are described or mentioned, and the absence of any typographical indication or precise specific characters of the new ones. It is, therefore, not always possible for the reader, without considerable trouble, to be certain to which of these categories any one subject of Prof. Schlegel's observations is to be referred. In the first article the following appear to be new species or conspecies:—*Stris rosenbergi*, *Noctua ochracea*, *Loriculus exilis*, *Dacelo fallax*, *Pitta atricapilla sanghirana*, *Otagon tanagra*, *Goura coronata minor*, *Carpophaga neglecta*, and *Rallina rosenbergi*. In the second:—*Psittacula*

gulielmi III. (!), *Campephaga sloeti*, *Scolopax rochussenii*, and *Noctua franseni*. The knowledge of all these birds is due to the indefatigable exertions of Dutch travellers or residents in the Malay archipelago.

SCHMIDT, MAX. Die Ueberwinterung. Zool. Garten, 1865, pp. 330-340.

This article is in continuation of one in the same volume (p. 293) referring to Mammals, and treats of the effects of wintering in the climate of Frankfort on the Maine on exotic birds.

TURREL, L. Des moyens les plus efficaces pour prévenir la destruction des Oiseaux de passage. Bull. Soc. Impér. d'Acclimat. 1865, pp. 497-532.

The folly of the indiscriminate destruction of birds, especially carried on in the south of France and Italy, is very fairly shown, and the author by doing this probably supplies a better means of checking the bad practice than any other that he suggests. The paper contains no information that will be new to the naturalist.

VIAN, JULES. Causeries Ornithologiques. Rev. et Mag. de Zool. 1865, pp. 40-47, 74-79, 129-133.

These papers treat chiefly of the economy of *Cuculus canorus*, and merit attention from those ornithologists to whom it is a matter of interest. The author very properly scouts the idea that the hen Cuckoo can voluntarily give her egg any colour desirable to assimilate it to those of the bird into whose nest she intends to introduce it, and considers that the variety in the colour of Cuckoos' eggs has been much exaggerated. He believes that intimidation is the means employed to induce other birds to foster them, and that a fight always takes place between the ovipositing Cuckoo and the owners of the nest. Acting on this belief, he instituted a series of experiments, of which he gives the details, proving that birds will not foster the egg of another species unless one of their own has been broken in or near the nest. The other subjects mentioned are the "cérémonies de mariage" of *Corvus corone*, and the "réunion" of a *Turdus viscivorus* with a *Fringilla caelebs*!

WEIR, J. JENNER. On the power possessed by Birds, natives of warm climates, to resist with impunity the cold of higher latitudes. Zoologist, pp. 9411-9414.

The author's experience is of some practical use to those who have the management of zoological gardens, tending as it does to show that birds from the tropics have a far greater power of resisting cold than is commonly supposed, and are kept in better

health by being exposed to severe weather than sheltered from it.

WOLF, JOSEPH. Zoological Sketches made for the Zoological Society of London, from Animals in their Vivarium in the Regent's Park. Edited, with Notes, by P. L. SCLATER. Second series. Parts i.-viii. London: 1865. Folio.

The second series of this magnificent work shows in a more striking manner than ever the extraordinary skill of Mr. Wolf, both as artist and zoologist. The subjects have been well selected by Mr. Sclater, and the temporary letterpress which accompanies them contains explanatory notices judiciously compiled. The following are the birds represented:—

Ptilonorhynchus holosericeus, *Gallopasis vieillotii*, *Talegalla lathamii*, *Balani-ceps rex*, *Aquila nœvia*, *Struthio camelus*, juv., *Ocydromus australis*, *Casarca leucoptera*, *Cerionis satyra*, *Rhinocetus jubatus*, and *Chloephaga magellanica*.

The first series of this work, which was completed in 1861, contained figures of *Falco sacer*, *F. grœnlandicus*, *F. islandicus*, *Gypohierax angolensis*, *Phasianus torquatus*, *P. versicolor*, *Gallopasis horsfieldi*, *Tetraogallus caspius*, *Galloperdix lunulosa*, *Rhea americana*, *Casuarius bennetti*, *Apteryx mantelli*, *Otis tarda*, *Grus montigenia*, *Mycteria australis*, *Cygnus nigricollis*, and *Chloephaga poliocephala*.

PALÆARCTIC REGION.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia ad illustrazione della raccolta ornitologica dei fratelli ERCOLE ed ERNESTO TURATI con tavole litografate e colorate prese dal vero da O. DRESSLER. Vol. I. Milano: 1865. Folio. Fascicoli i.-iii.

This very luxurious work, which we believe to be published at the expense of the Counts Turati, will sufficiently commend itself to Italian ornithologists, though it does not appear to contain much of interest to the general student. The illustrations represent the species depicted at their nests, which contain either eggs or young, generally the latter.

COLLETT, ROBERT. Zoologisk-Botaniske Observationer fra Gudbrandsdalen og Dovre. Christiania: 1865. 8vo, pp. 64.

It contains (pp. 6-13) a list of the birds of the neighbourhood of Lillehammer in the south of Norway, and one (pp. 54-64) of those appearing at Dovre. Neither contains anything of more than local interest. (*Cf. Ibis*, 1866, p. 212.)

CROMMELIN, J. P. VAN WICKEVOORT. Bijdrage tot de Vogel-fauna van Nederland. Nederl. Tijdschr. Dierk. 1865, pp. 242-248.

General observations, but not many of more than local interest. *Falco barbarus* has occurred in Holland.

CZERNAY, A. Nachtrag zur Fauna des Charkowschen Gouvernements. Bull. Soc. Impér. Moscou, 1865, vol. xxxviii. p. 61.

Nine species of birds are added to the list published in 1853, of which *Caprimulgus ruficollis* alone seems worthy of remark here.

DANILOFF, PIERRE. Catalogue des Oiseaux de la partie sud-est du gouvernement d'Orel. Bull. Soc. Imp. Moscou, 1864, part i. pp. 452-464.

About 176 species are mentioned; but the catalogue is little more than a nominal one, and none but well-known species are included.

DÉPIERRE, M. Contributions à la Faune vaudoise des oiseaux. Bull. Soc. Vaud. viii. pp. 146-148.

The author's observations have reference to the dates of appearance of migratory birds in the year 1862, and also to the occurrence of several species not commonly met with in the district, but nothing of very general interest is brought forward.

DROSTE, FERDINAND VON. Die Vögel Borkum's. Journ. für Orn. 1864, pp. 416-429.

This paper contains a description of the island, and a list of the thirty-four birds which breed upon it, followed by one of the hundred and thirty-nine species which visit it. The particulars only possess local interest.

——. Zu Borkum, im Entenloche. *Op.cit.* 1865, pp. 341-353.

Remarks in continuation of the paper last named.

DRUMMOND-HAY, H. M. Birds noticed in the Island of Crete during a Stay of nearly Two Months. Appendix V. to vol. ii. of Captain Spratt's 'Travels and Researches in Crete. London: 1865,' pp. 397-407.

This is a reprint, with many emendations, of a 'List of the Birds of the Island of Crete' by the author (then Captain Drummond), with notes by the late H. E. Strickland, which appeared in the 'Annals and Magazine of Natural History' (vol. xii. pp. 423-427), having been read at the Cork Meeting of the British Association in 1843. Colonel Drummond-Hay remained in Crete from the 27th April to the 18th June in the year just mentioned, and, so far as we know, is the only person in modern times who has had such facilities for becoming acquainted with its ornithology. The chief changes made in the present reprint are *Falco eleonoræ* for *F. subbuteo*, *Sylvia elaiica* for *S. palustris*,

Anthus campestris for *A. richardi*, *Linota linaria* (of course not the Linnæan species) for *L. montium*, *Perdix græca* for *P. saxatilis*, *Sterna leucoptera* for *S. nigra*, *Puffinus obscurus* for *P. anglorum*, and *Pelecanus crispus* for *P. onocrotalus*. *Perdix coturnix* of the former list is now altogether omitted, and it is suggested that *Fringilla cælebs* should be *F. spodiogenia*. One hundred and five species are included.

FATIO, VICTOR. Distribution verticale des Sylviadées en Suisse. Bull. Soc. Orn. de Suisse, i. pp. 39-67.

The author takes four localities, the borders of the Lake of Geneva, the Hasli, the Valley of Urseren, and the Upper Engadina, at all of which careful observations have been made. At the first, 24 species of *Sylviidæ* occur, 21 breed, and two are resident; at the second, 19 occur, 16 breed, and one is resident; at the third, 18 occur, 12 or 14 breed, and none are resident; and at the fourth locality 8 occur, 4 breed, and none reside. The general results are conveniently shown by means of tables.

FILIPPI, F. DE. Note di un Viaggio in Persia. Milano: 1865, 8vo. pp. 398.

The author was a member of an embassy sent, in 1862, by the Italian government to Persia, and in this work gives an account of the expedition from a zoological point of view, in which ornithology has a full share. The observations relating to birds are very numerous, and towards the end of the volume (pp. 344-352) a complete list of the species which occurred between the Caucasus and Teheran is given. The spring-passage of birds over the Mediterranean is mentioned (pp. 6, 7), and the flocks of *Puffinus anglorum* which haunt the Bosphorus (p. 9). Notice is also taken of the species observed near Tiflis (pp. 79, 80), Mount Ararat (p. 97), and Tabriz, and especially the locust-destroying services of *Pastor roseus* (pp. 161-164), as well as of the ornithology of Sultanieh (p. 196), Casbin (pp. 211, 212), and Ask (p. 276). The list of Persian birds includes 167 species, of which seven were the discoveries of the author and his companions. Five of these, *Irania* (gen. nov. *Saxicolinum*) *finoti*, *Dromolea chrysopygia*, *Otocorys larvata*, *Emberiza cernutii*, and *Picus khan*, were described in 1863 or 1864 (Archiv. per la Zoologia, &c., Modena, vol. iii. p. 377 *et seq.*); the two remaining are now announced as new under the names of *Crateropus salvadorii* and *Sylvia doriae*. The avifauna of Western Persia is characterized (pp. 365, 366) by a very great prevalence of European species; besides the new discoveries just mentioned, it appears that there are only some five species of *Passeres* not found within the limits of Europe; these are *Iaxus leucotis*, *Pratincola hemprichi*, *Serinus pusillus*, *Erythrospiza obsoleta*, and *Garrulus melanocephalus*.

FONTAINE, A. DE LA. Faune du Pays de Luxembourg ou Manuel de Zoologie, contenant la description des Animaux Vertébrés observés dans le Pays de Luxembourg. Luxembourg: 1865, 8vo, pp. 152.

The district of which the author writes is that which, prior to the political arrangements of 1759, formed the then Duchy of Luxemburg, extending from the neighbourhood of Verdun and Metz on the south to that of Liège and Büttgenbach on the north, and from Givet and Carignan on the west to Prüm and Wittlich below Trèves on the east. At present the part of the work published only comprehends the *Accipitres*, *Passeres*, and a few *Picarii*, to the entire number of 148 species, to which several more have a tolerably fair claim to be added. The local names, both Walloon and German, some of which are very odd ones, are always given. The author expresses his acknowledgements for assistance to M. de Sélys-Longchamps.

GIGLIOLI, HENRY. Notes on the Birds observed at Pisa and in its Neighbourhood during the Winter, Spring, and Summer of 1864. Ibis, 1865, pp. 50-63.

A paper sufficiently interesting in its details, but containing no great novelty.

GOULD, JOHN. The Birds of Great Britain. Parts vii. and viii. London: 1865. Imp. folio.

Two parts of this grand work have, as usual, made their appearance within the past year.

HINTZ I., W. Ornithologischer Jahresbericht u. s. w. in der Umgegend von Schlosskämpfen bei Cöslin in Pommern. Journ. für Orn. 1865, pp. 81-96, 230-244.

This report is in continuation of that noticed last year (Zool. Record, i. p. 43), and is of the same nature. *Falco peregrinus* was the only species noticed for the first time breeding.

HOMER, A. VON. Streifereien über die böhmisch-schlesischen Grenzgebirge. Journ. für Orn. 1865, pp. 355-367.

An account of the species observed at eight different localities on the frontier of Bohemia and Silesia. None seem to require any special notice here.

LILFORD, Lord. Notes on the Ornithology of Spain. Ibis, 1865, pp. 166-177, pl. v.

These notes refer almost exclusively to the birds of prey in the neighbourhood of Valencia. The author has seen *Aquila naevioides* several times in Spain, and a plate representing it in two stages of plumage accompanies the paper. None of the other species mentioned require further notice here.

MALMGREN, A. J. Nya Anteckningar till Spetsbergens fogel-fauna. Cefvers. K. Vet.-Akad. Förh. 1864, pp. 377-412. (Translated by Dr. C. F. FRISCH) Journ. für Orn. 1865, pp. 192-216, 261-270.

This paper is in continuation of one published in the same journal for 1863 (pp. 87-126), and contains the results of the author's further observations made in 1864. He reckons twenty-seven species as the avifauna of the country. Very many that were formerly assigned to it rest upon insufficient authority. Renewed researches have not led him to take a more favourable view of their claims than he did in 1863, but he makes some few changes in the identification of the species met with. No naturalist has enjoyed such opportunities of becoming acquainted with the zoology of Spitsbergen as the author, and his opinions in regard to it must retain their influence for many years; but personally we are unable to agree with all of them, though this is chiefly on general grounds of principle, such, for instance, as what differences are sufficient to constitute "a species." This paper, like its predecessor, is worked up with great care. It contains also a short notice of the birds of Bear Island, lying between North Cape and Spitsbergen, a place not visited before by any ornithologist.

MARCHAND, ARMAND. Catalogue des Oiseaux observés dans le département d'Eure-et-Loir. Rev. et Mag. de Zool. 1865, pp. 262-266.

In continuation of the series of papers noticed last year (Zool. Record, i. p. 43).

MILNE-EDWARDS, H. Rapport sur diverses Collections envoyés au Muséum par le P. Armand David, missionnaire à Pékin. Nouv. Arch. du Muséum, Bull. pp. 30, pls. 1 & 2.

Father David's collections were formed in the north of China, and the report upon them contains several observations on the general natural history of that still little-known country, ornithology, however, occupying the principal position both in collections and observations. Two species are described as new, *Carpodacus davidianus* and *Abroornis armandi*, both of which are figured.

MORE, A. G. On the Distribution of Birds in Great Britain during the Nesting-Season. Ibis, 1865, pp. 1-27, 119-142, 425-458. With a map (pl. i.).

The object of this series of articles is to show more accurately than has hitherto been done the precise limits of each species in Great Britain during the breeding-season, that being the only time when the birds could be treated as stationary. For this purpose the division of the whole country into districts, 1865. [VOL. II.]

proposed by Mr. H. C. Watson in his botanical works, has been adopted; and by references to the accompanying map, which is copied from one designed by that gentleman, the range of the different species is very compendiously shown. Following the same model, the author classes the birds of Great Britain into six categories, representing respectively the "British," "English," "Germanic," "Atlantic," "Scottish," and "Highland" types of distribution. Some such arrangement must necessarily have been adopted; but these names, if they be construed too literally, may lead to some misconception. Mr. More states that his work is confessedly imperfect, but we must express our opinion that it goes very far beyond anything in the way of completeness that has yet been attempted. The aid of about one hundred correspondents has been obtained to carry out the author's design; and as these include nearly all the best living ornithologists of Great Britain, it is no wonder that his mode of dealing with this interesting subject has met with success, especially as he also has bestowed a great amount of care and trouble on the task.

MUELLER, A. & K. Charakterzeichnungen der vorzüglichsten deutschen Singvögel. Leipzig und Heidelberg. 8vo, 11 tabb.

We have not seen this work, and only know of its existence from an advertisement.

NEWTON, ALFRED. Notes on the Birds of Spitsbergen. Ibis, 1865, pp. 199-219, 496-525, pl. vi.

The first part of this paper contains a narrative of the author's ornithological proceedings in Spitsbergen, and the second a catalogue of the species found there. The number of these tallies with that of Dr. Malmgren (*vide supra*), but this result is obtained by dismissing *Bernicla leucopsis* from, and inserting into the list *Streptopelia interpres*. From that naturalist the author also dissents in the assignment of several species of *Alcida*. *Fratercula glacialis* is figured.

PAESSLER, W. Beobachtungen aus den Jahren 1863 und 1864 in Anhalt. Journ. für Orn. 1865, pp. 30-42.

——. Beobachtungen in Anhalt aus dem Jahre 1865. *Op. cit.* pp. 297-306.

These observations have apparently only a local interest.

"RADDE, GUSTAV." The Zoology of Siberia. Nat. Hist. Review, 1865, pp. 457-466.

This article contains an excellent abstract of, and commentary on, the second volume of Herr Radde's 'Travels in the South of Eastern Siberia,' published at St. Petersburg in 1863 (4to,

pp. 392, tabb. 15), a most important work for the ornithologist, since it gives a complete account of the avifauna of South-Eastern Siberia, a region of which so little was before known, as it was left almost untouched by previous explorers. (*Cf.* *Ibis*, 1866, pp. 118, 119.)

SALVADORI, TOMMASO. Katalog der Vögel Sardiniens mit Noten u. Beobachtungen. Aus dem Italienischen übertragen durch Dr. CARL BOLLE. *Journ. für Orn.* 1865, pp. 45-67, 128-144, 271-288, 314-326.

A German translation of the work we noticed last year (*Zool. Record*, i. pp. 44, 45). Another article is required to complete the task; this will probably appear in the sixth *Heft* of the 'Journal,' which has not yet reached us.

SAXBY, HENRY L. Catalogue of the Birds of Shetland. *Naturalist*, ii. pp. 121-126, 142-146, 158-162.

One hundred and seventy-four species are enumerated, of which fifty seem to be inhabitants. Some appear to be introduced on very slight authority.

——. Ornithological Notes from Shetland. *Zoologist*, pp. 9401-9405, 9435-9439, 9484-9489, 9518-9526, 9566-9572, 9587-9591, 9760-9772.

This series of papers, in continuation of that we noticed last year (*Zool. Record*, i. p. 45), contains a mass of facts, some of them highly interesting, but far too numerous to specify.

SCLATER, P. L. A collection of Bird-skins from Japan. *Proc. Zool. Soc.* 1865, p. 618.

Twenty species enumerated, in addition to those mentioned by Capt. Blakiston (*Ibis*, 1862, pp. 309-333, and 1863, pp. 97-100), but some of them are not precisely determined.

SEIDENSACHER, EDUARD. Die Vögel von Cilli. *Mitth. naturw. Ver. Steiermark*, 1864, 34 pp.

Two hundred and four species, to which two others are added by the author in manuscript, are enumerated. None seem to be of any great rarity, but many of interest, and the whole article contains much useful information respecting the ornithology of Styria.

SUNDEVALL, C. J. Svenska Foglarna. Parts XVI. and XVII. Stockholm: 1865. Oblong 4to.

These contain half-sheets 45 to 52, and plates lxi. to lxxiii. The letterpress continues to give an account of the birds of prey.

TRISTRAM, H. B. On the Ornithology of Palestine. Part I.,

Ibis, 1865, pp. 67-83; Part II., *op. cit.* pp. 241-268, pl. ii.

These articles contain fuller details of the birds observed by the author and his friends. The characters of the Palestine avifauna as shown by Mr. Tristram's "Report" (P. Z. S. 1864, p. 426) we last year mentioned (Zool. Record, i. p. 46). The first of the two papers we have here to notice enlarges on the general features of the country from an ornithological point of view, and on some of the most remarkable species found in it, such as *Nectarinia osea* (of which a beautiful plate is given), *Cypselus galilæensis* (since shown by Mr. Sclater to be identical with *C. affinis*), *Hirundo rufula*, *Crateropus chalybeius*, *Irus xanthopygius*, and *Drymæca gracilis*. The second article contains a catalogue, with notes, of all the birds of prey observed by the author's party. The fact here most noticeable is the identification of what was in his "Report" named *Accipiter sphenurus* with the *Astur brevipes* of Severzow (Cf. Ibis, 1865, pp. 341, 342). Further details of the singular and interesting discovery of *Ketupa ceylonensis* in the Holy Land are also given. The publication of Mr. Tristram's paper is being still continued.

TRISTRAM, H. B. The Land of Israel; a Journal of Travels in Palestine, undertaken with special reference to its physical character. London: 1865, 8vo, pp. 652.

This entertaining volume furnishes a connected account of the author's travels, of the results of which we have before spoken.

[WHEELWRIGHT, H. W.] Ten Years in Sweden, &c. By an Old Bushman. London: 1865, 8vo.

Pages 249-450 of this work contain a "List of all the Birds met with at the present day in Scandinavia, Denmark, Finland, Greenland, and Spitzbergen," which is chiefly compiled from the labours of the best-known northern ornithologists, and among them especially Prof. Nilsson's 'Skandinavisk Fauna' (Lund: 1858), while the papers of Prof. Reinhardt (Ibis, 1861, pp. 1-19) and Dr. Malmgren (Efvers. K. Vet.-Akad. Förhandl. 1863, pp. 87-126) are respectively laid under contribution for the birds of Greenland and Spitsbergen. The whole has been worked up with a good deal of care; but it contains no small number of errors, and some of them grave ones, while the author has omitted to notice several valuable articles bearing upon the subject. It will, however, be useful to English readers.

WILLEMOES-SUHM, R. v. Beiträge zur Vogelfauna Nord-deutschlands. Zool. Garten, 1865, pp. 76-78.

This paper consists of notes on various birds occurring near the mouth of the Elbe or in Holstein; but nothing of importance is recorded, except that *Sylvia philomela* is not found there.

WILLEMOES-SUHM, R. v. Zu Andernachs Vogelfauna. *Op. cit.* pp. 355-357.

Only species which are well known to occur in the district are mentioned.

WRIGHT, CHARLES A. Second Appendix to a List of Birds observed in the Islands of Malta and Gozo. *Ibis*, 1865, pp. 459-466, pl. x.

The original list and its first appendix were noticed by us last year (*Zool. Record*, i. pp. 46, 47). Three species are now added, as well as some further notes on seven formerly included.

ETHIOPIAN REGION.

ADAMS, A. L. Beobachtungen über Vorkommen und Lebensweise der Vögel Egyptens und Nubiens. Aus dem Englischen, &c., von Dr. ROB. HARTMANN. *Journ. für Orn.* 1864, pp. 447-457.

A conclusion of the translation noted last year (*Zool. Record*, i. p. 47).

ANTINORI, ORAZIO. Beschreibung und Verzeichniss einer von Mai 1859 bis Juli 1861 in Nord-Central-Afrika angelegten Vögelsammlung. Aus dem Italienischen auszugsweise übersetzt und mit einigen Anmerkungen versehen von Dr. R. HARTMANN. *Journ. für Orn.* 1865, pp. 67-77.

The beginning of a German translation of the work noticed in our last volume (*Zool. Record*, i. p. 48). The translator's notes are not numerous.

BIANCONI, G. G. Specimina Zoologica Mosambicana. Fasciculus xiv. *Mem. Acad. Scienze di Bologna*, 2 ser. tom. iv. pp. 519-523, tab. ii.-iv.

This is one of a series of papers commenced in the same "Memorie" some sixteen years since. It contains descriptions and figures of *Ploceus spilonotus*, Vigors, fœm., with nest and egg, and of *Coturnix fornasini*, supposed to be a new species. A few other remarks are added, but none that need be noticed here.

BULGER, G. E. Record of a Day in Kaffraria. *Zoologist*, pp. 9810-9814.

Contains several ornithological observations.

GARNIER, —. Sur les Animaux domestiques et sauvages et sur

les Oiseaux du Soudan. Bull. Soc. Impér. d'Acclimat. 1865, pp. 885-898.

This paper contains nothing that can be of use to the ornithologist.

GURNEY, J. H. A Seventh additional List of Birds from Natal. Ibis, 1865, pp. 263-276.

The former lists were published in the same journal (Zool. Record, i. p. 48). Thirty-five species are now added, of which *Butalis cærulescens* and *Estrelida nitidula* are described as new by Dr. Hartlaub. Remarks on several other species are appended.

HARTLAUB, G. Descriptions of Seven New Species of Birds discovered by Mr. J. J. Monteiro in the Province of Benguela, Angola, West Africa. Proc. Zool. Soc. 1865, pp. 86-88, pl. iv.-vi.

The species are *Crateropus gymnogenys*, *Dryoscopus guttatus*, *Upupa decorata*, *Toccus elegans*, *T. monteirii*, *Cursorius bicinctus*, and *Otis picturata*. A few notes upon other species collected by Mr. Monteiro are added. The two *Tocci* and the *Otis* are figured.

——. On Two New Species of African Birds. Proc. Zool. Soc. 1865, pp. 428, 429, pl. xxiii.

The species are *Tchitreia spekii* and *Saxicola spectabilis*.

——. On a New Species of Francolin discovered by Messrs. Speke and Grant in Central Africa. Proc. Zool. Soc. 1865, pp. 665-667, pl. xxxix.

The bird is called *Francolinus granti*, a list of the twenty-five known species of African *Francolini* is added, and a description of *F. icteropus*, Heuglin.

——. On two New Species of South African *Saxicola*. Proc. Zool. Soc. 1865, pp. 746-747.

Saxicola castor and *S. pollux*.

HEUGLIN, TH. VON. Ornithologische Miscellen aus Central-Afrika. Petermann's Mittheilungen, Ergänzungsband iii. no. 15, 1865, pp. 33-38.

This is an appendix to the author's journal kept while on the well-known expedition of Madame Tinne. It contains notes on a vast number of birds, some of which are said to be new species; but where these are described it does not appear. Names, however, are given to them by the author.

——. Notizen über den Vogelzug im Herbst 1864 so wie über die ornithologischen Vorkommnisse in den Ländern der Bischarin, Omarab und Hádendoa zwischen Berber und

Sauakin. *Tom. cit.* pp. 39, 40. Extract, Journ. für Orn. 1865, pp. 42-45.

These observations are of considerable interest, nearly all the species observed in passage being European. The avifauna of that part of Nubia lying between Berber on the Nile and Sauakin on the Red Sea is very varied, and a brief list of the species observed by the author is given.

HEUGLIN, TH. VON. Nachträge zu den Ornithologischen Berichten vom Bahr-el-abiad. Journ. für Orn. 1865, pp. 98-100.

This paper contains the description of a *Ploceus* (which the author does not name) akin to, but distinct from, *P. rubiginosus*, Rüpp., and also of a new *Cursorius*; to the last are added some notes on the four other species known to him.

MONTEIRO, J. J. Notes on Birds collected in Benguela. Proc. Zool. Soc. 1865, pp. 89-96.

The seventy species enumerated were collected in 1862 and 1863 in the coast-region of the province, which is, generally speaking, dry, barren, and rocky, vegetation being abundant only near the few rivers or some twenty to thirty miles towards the interior. Some of the species are new, and have been described by Dr. Hartlaub (P. Z. S. 1865, pp. 86-88), who also determined the names of the remainder.

NEWTON, ALFRED. On Two New Birds from the Island of Rodriguez. Proc. Zool. Soc. 1865, pp. 46-48, pl. i.

The two birds are *Foudia flavicans* and *Drymæca* (?) *rodericana*.

——. On an apparently undescribed Bird from the Seychelle Islands. Ibis, 1865, pp. 331-333, pl. viii.

The bird is named *Copsychus sechellarum*.

——. List of Animals collected at Mohambo, Madagascar, by Mr. W. T. Gerrard. Proc. Zool. Soc. 1865, pp. 832-837.

Forty-four species of birds, none of which are new; though some are rare, were contained in the collection.

NEWTON, EDWARD. Notes of a Visit to the Island of Rodriguez. Ibis, 1865, pp. 146-154.

The only two aboriginal land-birds observed proved to be new, *Foudia flavicans* and *Drymæca rodericana*. Three bones of the extinct Didine species peculiar to the island were also found by the author and one of his friends (Proc. Zool. Soc. 1865, pp. 199-201).

SCHLEGEL, H. Contributions à la Faune de Madagascar et des îles avoisinantes, d'après les découvertes et observations de

MM. François Pollen et M. D.-C. van Dam. *Nederl. Tijdschr. Dierk.* 1865, pp. 73-89.

The author gives an account of some of the more interesting of the specimens sent home by the two travellers named from Réunion, Mayotte, the north-west of Madagascar, and the islands of Nossi-bé and Nossi-faly, which account is to be taken in connexion with M. Pollen's "Enumération des animaux vertébrés de Madagascar" contained in the same journal for 1863 (pp. 277-345). Prof. Schlegel describes as new species *Nisus brutus*, *Noctua polleni*, *Xenopirostris dami*, *Dicrurus waldeni*, *Zosterops flavifrons*, Pollen (*nec* Latham), and *Columba polleni*. He considers *Tinnunculus newtoni* to be identical with *T. punctatus*, and *Tchitrea mutata*, *T. pretiosa*, and *T. holosericea* to be synonymous, and the Madagascar Pigeons, which have been distributed under several genera, *Funingus*, *Alectroenas*, and *Erythræna*, to belong strictly to the genus *Ptilopus* (qu. *Ptilonopus*?). (Cf. *Ibis*, 1866, pp. 210 & 211.)

SCLATER, P. L. Description of a New Species of Passerine Bird from Madagascar. *Proc. Zool. Soc.* 1865, pp. 326, 327, pl. xiii.

This bird is the type of a new genus, *Hylophorba*, belonging to the family *Muscicapidae*, and is named *H. ruticilla*.

INDIAN REGION.

BEAVAN, R. C. Indian Ornithological Notes, chiefly on the Migration of Species. *Proc. Zool. Soc.* 1865, pp. 690-695.

This paper contains records of very numerous observations made at Barrackpore, near Calcutta, between July 28th and November 21st, 1864, of which it would be almost impossible to give an abstract.

——. Notes on various Indian Birds. *Ibis*, 1865, pp. 400-423.

The species noticed are some of those which occur around Darjeeling, in the Maunbhoom district and near Barrackpore. Of the physical features of the Maunbhoom district the author gives a rapid sketch. No new species are described, but, following the arrangement of Dr. Jerdon's work, nearly one hundred are re-marked upon.

BLYTH, EDWARD. A few Identifications and Rectifications of Synonymy. *Ibis*, 1865, pp. 27-50.

The birds to which these multitudinous remarks apply are chiefly the types of Horsfield's well-known paper on the ornithology of Java (*Trans. Linn. Soc.* xiii. p. 133) many of which are

identical with Australian species, a fact only recently determined by the author and Mr. Swinhoe, but since greatly corroborated by the researches of Prof. Schlegel and Mr. Gould. From the nature of the case it would be impossible to bring within the limits of this compilation an abstract of the many (not "few") identifications and rectifications of synonymy made by Mr. Blyth. The paper is one that must not be neglected by any student of Indian or Australian ornithology.

GOULD, JOHN. The Birds of Asia. Part xvii. London : 1865. Imp. folio.

Of the sixteen species described and figured, two are new—*Saxicola capistrata* (= *S. leucomela*, Jerdon nec Pallas) and *S. montana*, the last from Afghanistan. The true *S. leucomela* is also figured, but does not appear to be really Asiatic. Several others are not "Indian," but essentially "Palæarctic" or "Australian."

——. Descriptions of Four New Species of Birds from Eastern Asia. Proc. Zool. Soc. 1865, pp. 663–665.

They are *Nectarinia (Arachnechthra) insignis*, *Otocompsa fuscicaudata*, *Enicurus* (lege *Henicurus*) *guttatus*, and *E. (H.) sinensis*.

SWINHOE, ROBERT. Letters on Formosan and Chinese Ornithology. Ibis, 1865, pp. 107–112, 230–234, 346–359, 538–546.

These letters are crowded with interesting details, and contain the descriptions of several new species, of which due notice will be found under the groups to which they belong.

——. Neau-Show. Birds and Beasts (of Formosa). From the 18th Chapter of the revised edition of *Tai-wan foo-che*, Statistics of Taiwan. Proc. As. Soc. Shanghai, 1865, pp. 39–52.

This is a catalogue of Chinese names which the translator has endeavoured to identify with their scientific equivalents. As it is probably the first translation of the writings of a Chinese ornithologist, it is to be regarded as a curiosity.

AUSTRALIAN REGION.

BERNSTEIN, H. A. Ueber einen neuen Paradiesvogel und einige andere neue Vögel. Journ. für Orn. 1864*, pp. 401–410.

Descriptions of *Schlegelia calva*, *Arachnothera vagans*, *Zosterops fusca*, *Corvus megarhynchus*, and *Ptilonopus ochragaster*

* Not published till after March 1865.

are given in German, these having been already published in Dutch (N. T. D. pp. 320-324), as noticed by us last year (Zool. Record, i. pp. 75, 86, and 87); but two other species, *Lycocorax morotensis* and *L. obiensis*, are described for the first time.

FINSCH, OTTO. Neu-Guinea und seine Bewohner. Bremen: 1865, 8vo, pp. 186.

In the body of the volume the more prominent features of the avifauna of the country are pointed out (pp. 19-30), and in an appendix (pp. 154-185) a list of the birds hitherto observed in it and neighbouring localities, from North Australia (to lat. 30° S.) to Timor, is given. The total number of species enumerated is 920, of which 252 are known from New Guinea, 246 from North Australia, 129 from the Aru and 26 from the Ké Islands, 94 from Ceram, 95 from Mysol, 92 from Waigiu, 49 from Salwatty, 88 from Ternate, 129 from Halmahera, 124 from Batchian, 75 from Amboyna, 157 from Celebes, and 147 from Timor. The new species made known since 1858, when Mr. Wallace's discoveries drew attention afresh to this part of the world, are separately distinguished, and are no less than 178 in number, most of them being due to that traveller. Full of information as this volume is beyond any other on the subject, it only serves to show how little really is known of the animal productions of the wonderful island of which it treats.

GOULD, JOHN. Handbook to the Birds of Australia. London: 1865. Royal 8vo, vol. i. pp. 636, vol. ii. pp. 629.

In its effects this will most likely prove to be the most important work on ornithology published during the past year, and, if we except Dr. Jerdon's 'Birds of India,' it might even be safely said the most important published for several years, as it is almost impossible to overrate the stimulus which this 'Handbook' will be to the progress of science in Australia.

Six hundred and seventy species are enumerated as forming the avifauna of "the Australian continent, Tasmania, and those islands of the Great Barrier Reef which properly belong to Australia," to which limits the author confines his labours, though two dozen species from New Guinea, New Zealand, Norfolk, Lord Howe's, and other Islands, which were figured in his 'Birds of Australia,' are noticed in the Appendix. Very considerable care has been bestowed in amending the nomenclature and in working up the synonymy of the birds included, and this feature in the undertaking is one that can be dwelt upon with the greatest pleasure, for the execution of other parts of it is not equal to this. Diagnoses, whether generic or specific, are in almost every case wanting, and the descriptions are often so vague as very imperfectly to supply their absence. Nine new genera are proposed by the author, and names given

to them, but few, if any, of them can be said to be defined. They are as follows:—*Hylochelidon*, *Lagenoplastes* (*Hirundinidæ*), *Melanodryas*, *Ammaurodryas*, *Pacilodryas* (*Sylviidæ*), *Stigmatops* (*Meliphagidæ*), *Ptistes* (*Platycercidæ*), *Ægialophilus* (*Charadriidæ*), and *Limnocinclus* (*Scolopacidæ*). For simplicity's sake it is to be hoped that no future systematist will think it necessary to re-name these suggested genera in the event of his adopting and furnishing characteristics of them, though in most cases his right to disregard Mr. Gould's names would be unquestionable according to the generally recognized principles of zoological nomenclature. Six new species are also described in the present work, these are, "*Melanodryas picata*," "*Ptistes coccineopterus*," *Chalcophaps longirostris*, *Lophophaps ferruginea*, *Synoicus* (lege *Synæcus*) *cervinus*, and *Excalfactoria* (lege *Excalfactoria*) *australis*. In the matter of synonymy the most important result of Mr. Gould's later researches and comparisons is the identification of numerous Australian species formerly looked upon as distinct with well-known Indian or even Palæ-arctic forms. This is most especially to be remarked, as might have been expected, in the case of many of the *Grallæ* and *Anseres*, other orders having come in for their share of this treatment at the hands of Messrs. G. R. Gray and Strickland many years ago (Ann. N. H. xi. pp. 189 and 833). It is impossible, even in the special division of this 'Record,' to notice more than a portion of the changes brought about by the author's meritorious labour in this respect; and here we can only mention, to show what we mean, that *Charadrius veredus* and *Ardea leucophæa* are now identified with *C. asiaticus* and *A. cinerea*. The tables at the end of the work, indicating the distribution of the species throughout the seven Colonies into which Australia is at present divided, are also very useful, though, as Mr. Gould is careful to remark, these Colonies are by no means so many natural provinces. It is stated that, on a review, it will be seen that of the 670 species of birds found in Australia 400 have been observed in New South Wales, 427 in Queensland, 848 in Victoria, 312 in South Australia, 239 in West Australia, 235 in North Australia, and 162 in Tasmania. In West and North Australia probably many more have to be added, but in the other Colonies the numbers of species may be taken as a fair approximation to reality. A comparison of these tables with those contained in the author's 'Introduction to the Birds of Australia,' published in 1848, will alone show the progress that has been made in the accurate knowledge of the avifauna of the great island-continent.

GOULD, JOHN. Descriptions of Two new Australian Birds. Proc. Zool. Soc. 1865, pp. 198, 199.

They are *Makrus leuconotus* and *Artamus melanops*.

RAMSAY, E. P. List of Birds received from Port Denison, Queensland. *Ibis*, 1865, pp. 83-87.

A nominal list of forty-five species, some notes being added respecting a few of them. *Nectarinia australis* is perhaps the most remarkable.

——. On the Nests and Eggs of some New Zealand Birds. *Ibis*, 1865, pp. 154-157. [See "Oology."]

——. Notes on Birds breeding in the neighbourhood of Sydney. *Ibis*, 1865, pp. 298-306. [See "Oology."]

——. Notes upon the Cuckoos found near Sydney, New South Wales. *Proc. Zool. Soc.* 1865, pp. 460-465.

The species mentioned are *Chalcites lucidus*, *Cuculus inornatus*, and *C. cineraceus*. Many details of their habits, especially when breeding, are given.

SCHLEGEL, H. De Vogels van Nederlandsch Indië beschreven en afgebeeld. Monographie 2, Ijsvogels (Martin-Pêcheurs). Harlem: 1864. 4to, pp. 68, tabb. 16, figg. 67.

The first part of this work, forming a monograph of the *Pittidæ* of the Dutch Indies, was published in 1863. The second contains the *Alcedinidæ* of the same region; and under the heading of that family further details will be found. The text is partly in Dutch and partly in French, the "Revue synoptique" of the whole being in the latter. The figures, though on a small scale, are very beautifully executed.

TRAVERS, HENRY HAMMERSLEY. Notes on the Chatham Islands (lat. 44° 30' S., long. 175° W.). *Proc. Linn. Soc. Botany*, ix. pp. 135-144.

While describing the human inhabitants, formation, fauna, and flora of the group, the author enumerates the birds found upon the two islands which compose it. As may be expected, they are all of New Zealand type, though their precise identity with New Zealand species is rather inferred than proved. Very curious is the reported occurrence there of so many flightless forms, such as *Apteryx*, *Ocydromus*, and *Strigops*, which, are stated to have become extinct since the Maori invasion of 1832 or 1835. Two species, termed a "Pigeon" and a "Titmouse," but not scientifically named, have made their appearance in the islands, and colonized them, at a recent date. The ornithological portion of this interesting paper is reprinted, '*Ibis*,' 1866, pp. 113-115.

WALLACE, ALFRED R. On the Pigeons of the Malay Archipelago. *Ibis*, 1865, pp. 365-400, pl. ix.

This paper is a worthy companion to the author's treatise on

the *Psittaci* of the same region, noticed last year (Zool. Record, i. pp. 53-55). Like that group of birds, the *Columbæ* attain their maximum development in the limited district of which the great island of New Guinea forms the centre, and which he calls the Austro-Malayan subregion. Its actual land-area is less than one-sixth of Europe, and yet it contains more than a fourth of all the species of Pigeons known to exist. This peculiar distribution is, Mr. Wallace suggests, owing to the total absence from it of all forest-haunting and fruit-eating mammals, such as Monkeys and Squirrels; at least the converse is no doubt the reason why, in the Amazon valley, Pigeons are scarce or almost entirely absent, such species as there are having mostly habits of feeding on the ground and breeding lower in the bushes than Monkeys descend. In the Malay countries also there are no great families of fruit-eating *Passeres*, and their place seems to be taken by the true Fruit-Pigeons, which, unchecked by rivals or enemies, often form with the *Psittaci* the prominent and characteristic features of the avifauna.

Mr. Wallace divides the order *Columbæ* into three great families: the *Treronidæ*, with short legs and broad-soled grasping feet, feeding entirely on fruit, and never descending to the ground, are entirely confined to the eastern hemisphere; the true *Columbidæ*, with larger feet but slenderer toes, feeding either on the trees or on the ground, are of the most general distribution; and the *Gouridæ*, with longer legs, running quickly, feeding always on the ground, and only ascending trees to roost, chiefly abound in the Australian and [South] American regions. Each of these families is distinguished by a characteristic type of colouring.

Of the *Treronidæ* fifty-four species are confined to the Austro-Malayan, while twenty-eight inhabit the Indo-Malayan subregion. In India fourteen, and in Africa six species (all of the same genus *Treron*) are found; thirty inhabit the Pacific islands; and eight occur in Australia or New Zealand; while New Guinea has fourteen species.

The true *Columbidæ* are, in the Archipelago, chiefly represented by the genus *Macropygia*, but more than a single species is rarely found in any one island, except Java. The Old-World genus *Turtur* has a few representative species in the Indo-Malay islands, but does not properly extend to the Australian region.

Of the seven genera of *Gouridæ* found in the Archipelago, only two extend to the continent of Asia, while five are confined to the Austro-Malayan subregion, and three to New Guinea. The singular *Caloenas nicobarica* Mr. Wallace believes to have spread westward from New Guinea to the islands whence it takes its name. The other genera have a very limited range, *Chalcophaps* being the only exception; but all its species are

very closely allied, and their extended distribution has probably been of not very ancient date; human agency, indeed, may have aided it.

The entire number of Pigeons known to exist is about three hundred: of these the Malay Archipelago already counts one hundred and eighteen, while only twenty-eight are found in India, twenty-three in Australia, less than forty in Africa, and not more than eighty in the whole of America. These facts show that the Malay Archipelago is preeminently the metropolis of the *Columbæ*: but there they are very unequally distributed; for while the Indo-Malayan subregion contains nine genera and forty-three species, the Austro-Malayan has fifteen genera and eighty-four species. Here, then, is the focus of the order; and the condensation is carried to the utmost in New Guinea, in which, though only a few points on its coast have been visited, twenty-five species have been obtained.

Mr. Wallace therefore believes that the distribution of the *Columbæ* fully confirms the results furnished by the study of other groups of birds, mammals, and insects, the chief of which is that the Malay Archipelago is not one of the primary divisions of the globe, and that while one half belongs to the Indian region the other forms part of the Australian.

We have here only given a brief sketch of the introduction to this paper, touching upon those points which seem to have a general interest. The remainder will be found noticed under the head "*Columbæ*."

WALLACE, ALFRED R. Descriptions of New Birds from the Malay Archipelago. Proc. Zool. Soc. 1865, pp. 474-481, pls. xxviii., xxix.

The species are named *Accipiter æquatorialis*, *A. muelleri*, *Gerygone neglecta*, *G. palpebrosa*, *Muscicapa helianthea*, *Cyornis rufigula*, *C. rufifrons*, *Rhipidura longicauda*, *R. torrida* (figured pl. xxviii.), *R. cinerea*, *Prionochilus aureolimbatus* (figured pl. xxix. fig. 1), *Pachycephala brunnea*, *Dicrurus leucops*, *Ptilotis rostrata*, *Nectarinia flavostriata* (figured pl. xxix. fig. 2), *N. porphyrolema*, *N. grayi*, *Munia tristissima*, *Turnix ruflatus*, *Porzana moluccana*, and *P. rufigenis*.

NEARCTIC REGION.

ALLEN, J. A. Catalogue of Birds found at Springfield, Mass., with Notes on their Migrations, Habits, &c., together with a List of those Birds found in the State not yet observed at Springfield. Proc. Essex Instit. iv. p. 48.

This paper we have not seen. We quote its title from the list of publications printed by the Institute.

AMBROSE, JOHN. Observations on the Sea-Birds frequenting St. Margaret's Bay, N.S. Proc. Nov. Scot. Inst. Nat. Sc. ii. pp. 51-59.

Twenty-nine species are mentioned by their local names, and some of them are scientifically identified, but the list is admitted by the author to be incomplete. A very great and unnecessary destruction of birds appears to go on in this district.

BAIRD, S. F. Review of American Birds in the Museum of the Smithsonian Institution. Part I. (continued). North and Middle America. Washington: 1865. Royal 8vo, pp. 177-320.

The scope of this work was explained in the last volume of the 'Record' (p. 55). The continuation published during the past year completes the family *Mniotiltidae*, including descriptions of thirteen or fifteen species which are new or renamed; and three new subgenera, *Myioborus*, *Idiotes*, and *Ergaticus*, are characterized. This portion of the work concludes with the family *Hirundinidae*, of which six or seven new species are described. *Phaeoprogne*, *Pygochelidon*, *Notiochelidon*, and *Callichelidon* are new subgenera formed. The author characterizes every species and group included in his work with a degree of minuteness which is almost excessive; but the abundance of materials at his disposal probably renders this necessary, while the perspicuity of his descriptions does much to remove any evil that might in consequence arise, though this does not make the task of the present compiler the easier, it being impossible for him generally to condense the numerous peculiarities, which in some instances appear to belong rather to the individual, sufficiently to reproduce them in the special part of the 'Record.'

COUES, E. Ornithology of a Prairie-Journey, and Notes on the Birds of Arizona. Ibis, 1865, pp. 157-165.

The route taken by the author was through Fort Leavenworth and Santa Fé to Fort Whipple, in the spring of 1864. At St. Louis he had the first indication of entering upon an avifauna different from that of the east, and near Fort Riley he found still greater changes, though its type was still essentially eastern; but directly westward of this place the true prairie-species are met with. *Calamospiza bicolor* is the characteristic bird of the district, but stops abruptly at the first mountains. *Xanthocephalus icterocephalus*, *Eremophila cornuta*, and *Sturnella neglecta* continue through New Mexico into Arizona. *Carpodacus frontalis* is the common town-bird of New Mexico. Several eastern forms are common on the Rio Grande. The avifauna of Arizona inclines decidedly towards that of corresponding regions in California, as is shown by the list of birds with which Dr. Coues

concludes this interesting paper on a country of which so little was known.

Downs, A. On the Land-Birds of Nova Scotia. Proc. Nov. Scot. Inst. Nat. Sc. ii. pp. 38-51.

Sixty-one species are treated of, but the paper has only a local interest.

DRESSER, H. E. Notes on the Birds of Southern Texas. Ibis, 1865, pp. 312-330, 466-495. [Concluded 'Ibis,' 1866, pp. 23-46.]

The author resided in this region from June 1863 to July 1864, and made many excursions to different localities. At San Antonio he fell in with the late Dr. A. L. Heermann, who aided him materially. These notes consequently contain much information relating to the birds of the country, and especially to their distribution in it. Several species of considerable rarity were met with.

[MUELLER, J. W.] Systematisches Verzeichniss der in Mexico beobachteten und gesammelten Vögel. pp. 26, 8vo.

It appears from Dr. Hartlaub's 'Bericht' for 1864 that this list, which is said to be the fullest yet published of the Birds of Mexico, is from the third volume of the author's 'Reisen in Mexico und den Vereinigten Staaten.' The separately-printed copy we have seen bears no author's or printer's name or date or place of publication: 621 species are enumerated, and a few synonyms added.

WHITELY, H. Catalogue of North American Birds and Eggs, arranged in cabinets in the museum of the Royal Artillery Institution, Woolwich. Woolwich: 1865. Roy. 8vo, pp. 23.

We notice this publication chiefly for the purpose of drawing attention to the flourishing Museum at Woolwich.

NEOTROPICAL REGION.

CASSIN, JOHN. On some Conirostral Birds from Costa Rica in the Collection of the Smithsonian Institution. Proc. Acad. Philad. 1865, pp. 169-172.

Twenty-two species are mentioned, of which three, *Arremon rufidorsalis*, *Buarremon crassirostris*, and *Euphonia anneæ* [sic] are described as new.

LANDBECK, LUIS. Beiträge zur Ornithologie Chiles. Archiv für Naturgesch. 1864, i. pp. 55-62.

Two supposed new species are described, *Dendræca atricapilla* and *Arundicola citreola*.

LANDBECK, L. and PHILIPPI, R. A. (See PHILIPPI, R. A., and LANDBECK, L.)

LAWRENCE, G. N. Descriptions of four new species of Birds from the Isthmus of Panama. Proc. Acad. Philad. 1865, pp. 106-108.

The species are *Tachyphonus rubrifrons*, *Anthus parvus*, *Thamnophilus nigricristatus*, and *Geotrygon albiventer*. They are all founded on specimens which have been described under other names.

——. Descriptions of Six New species of Birds from Central America. Ann. Lyc. New York, 1865, pp. 171-174.

The species described are named *Spermophila hicksi*, *S. badiiventris*, *S. fortipes*, *Formicivora schisticolor*, *Elainea frantzii*, and *Mitrephorus aurantiiventris*.

——. List of Birds from near David, Chiriqui, New Granada, collected for the Smithsonian Institution, Washington, by Mr. Fred. Hicks, with Descriptions of New Species. *Op. cit.* pp. 175-179.

The collection consisted of thirty-nine species, of which three, *Spermophila collaris*, *Elainea chiriquensis*, and *E. semiflava* are described as new.

——. Catalogue of a Collection of Birds in the Museum of the Smithsonian Institution, made by Mr. H. E. Holland at Greytown, Nicaragua, with Descriptions of New Species. *Op. cit.* pp. 179-185.

Sixty-one species are enumerated, of which *Thryothorus brunneus*, *Synallaxis nigrifumosa*, and *Thamnophilus hollandi* are described as new.

PHILIPPI, R. A., and LANDBECK, L. Beiträge zur Ornithologie Chiles. Archiv für Naturgesch. 1864, i. pp. 41-54. *Op. cit.* 1865, i. pp. 56-104.

The first of these papers contains the descriptions of three species supposed to be new, namely *Accipiter chilensis*, *Chlorospiza* [?] *plumbea*, and *Sycalis aureoventris*. The second article includes the description of *Pteroptochus castaneus*, and two treatises, one on "Die Lerchen Chiles" which belong to the family *Dendrocolaptidae* (cf. Sclater, Ibis, 1865, p. 59), and the other a "Monographie der südamerikanischen *Muscisaxicolinen*" (*Tyrannidae*).

SALVIN, OSBERT. The Sea-birds and Waders of the Pacific Coast of Guatemala. Ibis, 1865, pp. 187-199.

This paper does for the western shore of Central America 1865. [VOL. II.]

what the paper noticed last year (Zool. Record, i. p. 56) did for the eastern, and is of exactly the same description.

SCLATER, P. L. On two rare Species of the American genus *Dendraca*. Ibis, 1865, pp. 87-89. [Error corrected, *op. cit.* p. 237].

——. Description of a New Accipitrine Bird from Costa Rica. Proc. Zool. Soc. 1865, pp. 429, 430, pl. xxiv.

Named *Leucopternis princeps*.

ANATOMY AND PHYSIOLOGY.

BIANCONI, G. G. Studi del Tarso-metatarso degli Uccelli ed in particolare su quello dell' *Apyornis maximus*. Continuazione e fine. Mem. Accad. Scienze di Bologna, 2 ser. tom. v. (12 Jan. 1865), pp. 31-112, tabb. v.-xiv.

This is the conclusion of a paper* by the author in the same journal for 1863 (tom. iii. pp. 173-199, tabb. i.-iv.). In the former part Prof. Bianconi examined the structure of the tarso-metatarsus in the *Scansores* and *Grallæ*. In the present memoir the same bone in the *Gallinæ*, *Struthiones*, *Accipitres*, *Passeres*, *Anseres*, and finally in *Apyornis maximus* (of which it is, with the egg, the sole relic) is taken into consideration. He at length arrives at the conclusion that this last-named species was a Vulture, and very nearly allied to the Condor (*Sarcorhamphus gryphus*). The plates represent the tarso-metatarsus of the following birds:—*Meleagris gallopavo*, *Tetrao urogallus*, *Perdix cinerea*, *Columba turtur*, *Corvus frugilegus*, *Cypselus apus*, *Struthio camelus*, *Rhea americana*, *Aquila chrysaetus*, *Asio otus*, *Sarcorhamphus gryphus*, *S. papa*, *Gypaetus barbatus*, *Colymbus arcticus*, *Podiceps*, sp., *Anas boschas*, *Clangula glaucion*, *Pelecanus*, sp., *Phalacrocorax carbo*, *Hydrochelidon nigra*, and *Apyornis*. A brief extract from this paper is contained in Ann. des Sci. Naturelles, iii. pp. 59, 60, and an abstract of it in Rev. Zool. 1865, pp. 47-49. (Cf. P. Z. S. 1865, p. 196, and Ann. & Mag. N. H. 3rd ser. xvi. p. 59.)

CRISP, E. On the Anatomy and Habits of the Water-Ousel (*Cinclus aquaticus*). Proc. Zool. Soc. 1865, pp. 49-52.

The first object of the author is to ascertain by what means the bird is enabled to dive. This, he thinks, is accounted for by the shortness of the wing and great development of its muscles. The caudal muscles also are much developed. The visceral anatomy differs very little proportionately from that of other

* The series of articles in connexion with the subject has its beginning in the Memoirs of the Bologna Academy several years ago, and is continued in those for 1862, pp. 3-64.

Turdidae examined, and, as in most of them, the bones contain no air.

CULLEN, W. H. On the Gular Pouch of the Male Bustard (*Otis tarda*, Linn.). *Ibis*, 1865, pp. 143-145.

The author has rediscovered this curious structure, the existence of which had been doubted (*cf.* *Ibis*, 1862, pp. 107-127; J. f. O. 1862, pp. 137-153), in two examples of the bird examined by him in Bulgaria, of one of which he gives two figures, showing the orifice under the tongue and the sack expanded. No light is thrown on the development or application of this mysterious organ.

DARESTE, C. Investigations on Eggs with a Double Germ, and on the Origin of Double Monsters in Birds. *Ann. & Mag. Nat. Hist.* 3rd ser. xv. pp. 432, 433.

The observations herein contained are of a nature purely physiological.

DAVY, J. On the Freezing of the Egg of the Common Fowl. *Trans. Roy. Soc. Edinb.* xxiii. pp. 505-513.

The careful experiments made by the author are entirely of a physiological nature. They differ from those of Hunter and Mr. Paget, wherein the eggs were exposed to extreme artificial cold, and only for a short time. Dr. Davy generally made use of natural frost, but some experiments with freezing mixtures are also mentioned. The question of how much cold a fertile egg can endure without its vitality being injured seems to be still undecided.

DUSSEAU, J. L. Musée Vrolik. Catalogue de la Collection d'anatomie humaine, comparée et pathologique de MM. Ger. et W. Vrolik. Amsterdam: 1865. Roy. 8vo, pp. 464.

The ornithological portions of this Catalogue are scattered about in a manner rather puzzling to the student. The following references to them will, we believe, serve as a guide to any ornithologist consulting the work—pp. 152, 153, 163-166, 177-182, 190, 191, 194-198, 200, 203, 207, 210, 211, 213, 231, 233, 244-246, 253, 256, 259, 263, 264, 270, 271, 459; but not much information is contained in it that, apart from the collection, which is now at Amsterdam, would be found useful.

EUDES-DESLONGCHAMPS, E. Note sur des Moisissures abondamment développées dans l'intérieur d'un œuf de Casoar de la Nouvelle Hollande. *Bull. Soc. Linn. de Normandie*, ix. pp. 381-385.

The author supposes the spores to have penetrated the egg-shell.

FLOWER, W. H. On the Gular Pouch of the Great Bustard (*Otis tarda*, Linn.). Proc. Zool. Soc. 1865, pp. 747, 748.

The specimens dissected by Dr. Cullen (*vide supra sub eo nom.*) are here fully described. There is a distinct and unquestionably natural opening under the tongue, surrounded by well-marked folds of mucous membrane, which close it by coming into apposition. A band of muscular fibres runs on each side of the neck of the sack, and is evidently the sphincter spoken of by several observers; it appears, however, only to be part of the general muscular system. One sack measured 9 inches in length, and held easily three imperial pints. Both of them contained a few pieces of grass and leaves. There appears to be no glandular structure connected with the organ; and it is probably a simple reservoir for fluid, more analogous to the pouch of the *Pelecanidæ* than anything else.

GERMAIN, R. Note sur la structure du gésier chez le Pigeon Nicobar. Ann. des Sc. Nat. iii. p. 352.

The note seems to confirm Mr. Flower's more detailed observations (P. Z. S. 1860, pp. 333, 334).

GIEBEL, C. Zur Charakteristik der Pelekane. Zeitschrift für die gesammten Naturwissenschaften, 1865, pp. 250-257.

The osteology of the genus *Pelecanus* as represented by three of its species, *P. erythrorhynchus*, *P. crispus*, and *P. onocrotalus*, is very carefully and at the same time succinctly described.

HARTING, P. L'appareil épisternal des Oiseaux. Natuurk. Verhand. Utrechtsch Genootsch. Kunst. Wetenschapp. Nieuwe Reeks. I. iii. pp. 20, *cum tab.*

By the term "episternal apparatus" the author means all that structure, whether membranous or osseous, which commonly unites the clavicles [furcula] to the sternum, and has generally been considered as forming its anterior part, but is in reality as distinct from it as are the clavicles and the coracoids. After describing in some detail the form it takes in various birds (re-marking on the curious fact that in the male of *Meleagris gallopavo* there is a strong osseous superior apophysis, while in the female of the same species there is simply a thickening of the median plate only composed of tendinous tissue without any trace of cartilage), he briefly sums up the results of his observations nearly as follows:—

1. All birds have an apparatus comparable to the episternum of saurians and some mammals.

2. The episternal apparatus of birds is sometimes altogether, and always for the most part, in a membranous state.

3. When it is complete, it consists of a vertical median poste-

rior plate, with two lateral plates and a horizontal median and anterior one, which last is sometimes wanting.

4. These taken together correspond to the T-shaped or cruciform episternum of saurians, with the exception of the upper parts of the lateral plates, which are equivalent to the lateral prolongations of the coracoids in those animals.

5. Sometimes the episternal apparatus remains membranous for the bird's whole life. The place of ossification is generally in the median posterior plate. The superior apophysis, which is its result, bifurcates when it also extends into the lateral plates. Another point of ossification is close to the angle of the furcula. The prolongation of this, which forms the furcular apophysis, varies much in different species, sometimes extending to the lower end of the crest. The least-frequent ossification is that of the middle and posterior part of the median horizontal and anterior plate between the branches of the furcula and giving rise to the median apophysis.

6. When the trachea enters the keel, the osseous walls of the cavity are part of the episternal formation.

The plate illustrating this paper is most beautifully executed. The sternum of *Grus cinerea*, however, is represented as that of *Cygnus musicus*, though the mistake does not impair the value of the author's observations. (Cf. *Comptes Rendus*, 1865, p. 727, *Rev. Zool.* 1865, pp. 118, 119, and 'Ibis,' 1866, p. 116.)

HAUGHTON, SAMUEL. On the Muscular Mechanism of the Leg of the Ostrich. *Ann. & Mag. Nat. Hist.* 3rd ser. xv. pp. 262-272, plates vi., vii.

A very elaborate and excellent piece of descriptive anatomy. The author believes that in the digastric rectus femoris muscle lies the key to the explanation of the complicated muscular apparatus of the Ostrich's leg. This mechanism Dr. Haughton considers to be a strong argument against the theory of natural selection.

HOMER, ALEXANDER VON. Das Wiederaufleben eines durch nasse Kälte erstorbenen Zwerg-Fliegenfängers, *Erythrosteria parva*. *Journ. für Orn.* 1865, pp. 221-224.

An instance of resuscitation of a half-drowned cage-bird, not very remarkable.

LANDOIS, H. Die Eierschalen der Vögel in histologischer und genetischer Beziehung. *Zeitschr. für Wissensch. Zoologie*, 1865, pp. 1-31, taf. i.

The histological and genetic relations of egg-shells are considered in much detail by the author, who bases his researches on an examination of the eggs of upwards of sixty species of birds. The plate represents the microscopic appearance of dif-

ferent layers in the shell of the eggs of *Meleagris gallopavo*, *Upupa epops*, *Phasianus colchicus*, *Hirundo rustica*, *Podiceps minor*, *Sylvia atricapilla*, and *Emberiza citrinella*.

MILNE-EDWARDS, ALPHONSE. Observations sur l'appareil respiratoire de quelques Oiseaux. Ann. des Sc. Nat. iii. pp. 137-142.

The author confirms the observations of Prof. Owen (P. Z. S. 1835, pp. 9-12) as to the communication existing between the lungs and the subcutaneous air-cells in some of the *Pelecanidæ*, which had been denied by Messrs. Natalis Guillot (Ann. Sc. Nat. 2 ser. 1816, v. p. 25) and Sappey (Recherches sur l'appareil respiratoire des Ois. pp. 70-80).

OWEN, RICHARD. Description of the Skeleton of the Great Auk or Garfowl (*Alca impennis*, L.). Trans. Zool. Soc. vol. v. pp. 317-335, pls. li., lii.

The specimen was found on Funk Island, near Newfoundland (P. Z. S. 1863, pp. 435-438); being defective in the bones of the extremities, the author procured specimens of these from Mr. John Hancock, and, thus having at command the materials for a description of the complete osteology of the bird, he proceeds to give an account of it, entering into very minute details of every bone, and finally comparing the skeleton with that of other diving birds, especially that of *Uria* (*Cepphus*) *grylle* and *Aptenodytes antarcticus*. With the latter, as might have been expected, *Alca impennis* has no affinity. It has twenty-two free vertebræ between the skull and sacrum, while *A. torda* has one less. The plates appended to this valuable paper serve very insufficiently to illustrate it.

——. On the morbid appearances observed in the dissection of the Penguin (*Aptenodytes forsteri**). Proc. Zool. Soc. 1865, pp. 438, 439.

The most remarkable peculiarity observed was the presence of a well-developed urinary-bladder.

PARKER, W. K. On the Osteology of *Microglossa alecto*. Proc. Zool. Soc. 1865, pp. 235-238.

The author by way of introduction states his concurrence in the views of many modern systematists as to the high position occupied by the *Psittaci*, and then proceeds to describe in detail the cranium of the species under consideration, and subsequently, but more briefly, its sternal apparatus.

The sternum of *Phlogænas crinigera* is described and figured. P. L. Sclater, P. Z. S. 1865, pp. 239, 240.

The sternums of *Cypselus apus*, *Chætura zonaris*, *Collocalia*

* Lege *A. pennanti*.

francica, and *Dendrochelidon wallacii* are figured; *Idem*, *op. cit.* pp. 594, 595, and the bones of the foot of *Panyptyla melanoleuca* and *Chætura zonaris*, p. 596.

The cranium, sternum, and tongue of *Leptosoma discolor* (*sc. afer*) described and figured. *Idem*, *op. cit.* pp. 684–688.

PTERYLOLOGY.

ALTUM, B. Leucismen münsterländischer Vögel. Zoolog. Garten, 1865, pp. 114–116.

This paper is in continuation of an article on the subject in the preceding volume of the same journal. Cases of albinism in twenty-seven, and of melanism in four species of birds are mentioned.

DALLAS, W. S. On the Feathers of *Dinornis robustus*, Owen. Proc. Zool. Soc. 1865, pp. 265–268; Ann. Mag. Nat. Hist. 3rd ser. xvi. pp. 66–69.

The feathers were from the specimen whose discovery we last year noticed (Zool. Record, i. pp. 97, 98). The portion of the skin bearing them was from the region of the pelvis. They are all very imperfect, consisting only of the basal parts of the shafts and accessory shafts (which latter are considerably shorter than the former), with here and there some traces of the barbs. The structure of the web differs somewhat from that of *Dromæus* and *Casuaris*; but, from the decomposed state of the specimens, it cannot be decided whether the basal barbs had the hair-like tips possessed by those birds. But undoubtedly *Dinornis* had a large accessory plume, showing another proof of its relationship to those genera and its difference from the *Struthionine* proper. Figures of the feathers are given.

DOEBNER, —. Ueber die Farbenabänderungen der Säugethiere und Vögel, namentlich in Weiss und Schwartz. Zoolog. Garten, 1865, pp. 3–11.

Some general remarks on the variation in colour towards albinism and melanism are followed by lists of species subject to this peculiarity which have come under the author's notice. The list of birds contains the names of twenty-one species in which the former, and of four in which the latter, has been noticed.

MURIE, J. Note upon the Abnormality of a Tail-feather in a male Sæmmering's Pheasant. Proc. Zool. Soc. 1865, p. 746.

One of the middle rectrices of a *Phasianus sæmmeringi* was turned completely upside-down, but at its posterior third the feather seemed to endeavour to recover its normal condition. The twist would appear to have taken place during its growth.

PELZELN, A. von. Ueber Farbenabänderungen bei Vögeln. Verhandl. zool.-bot. Gesellsch. Wien, 1865, pp. 911-946.

This contains the remarks, with additions, on the same subject introduced into the author's portion of the zoology of the 'Novara' voyage (pp. 14-25), already mentioned under the heading "General Subject," wherein he confined himself to the *Falconidæ*. Of the kind of variation which Herr von Pezeln calls "Albinismus," his observations are founded on complete instances in 32 species, incomplete in 45, and partial in 37. Of "Melanismus" complete instances are mentioned in 15 species, incomplete in 6, and partial in 2. Of "Erythrismus" there are 17 cases. (Cf. *Ibis*, 1866, p. 209.)

SCLATER, P. L. On the Structure of *Leptosoma discolor*. Proc. Zool. Soc. 1865, pp. 682-689.

In this bird the body-feathers have a long, downy auxiliary plume, which is entirely deficient in the *Cuculidæ*. The upper ptilosis resembles that of *Coracias* and *Eurystomus*, the spinal tract bifurcating between the shoulders. The branches are then discontinuous for a short space, but reappear and unite on the rump, where a very abnormal feature presents itself, to be found neither in the *Coraciidæ* nor in any other group of *Picariæ*. This is the existence of two large and highly-developed powder-down patches placed on the flanks on each side of the rump. The oil-gland almost entirely disappears. Figures showing these peculiarities illustrate this interesting paper.

NEOSSOLOGY.

BETTONI, EU. Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See under heading "PALÆARCTIC REGION."] Milano: 1865. Folio. Fascicoli i.-iii.

The young of *Calamoherpe turdoides*, *Ardeola minuta*, *Pratincola rubetra*, *Coturnix communis*, and *Curruca atricapilla* are figured.

GOULD, J. The Birds of Great Britain. London: 1865.

Part VII. includes figures of the very young state of *Falco æsalon* and *Vanellus cristatus*, and Part VIII. those of *Ardea cinerea*, *Sternula minuta*, *Sterna hirunda*, *Fratercula arctica*, and *Stercorarius parasiticus*.

MARCHAND, A. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1865.

The series of illustrations for the past year includes the following species:—

Mormon fratercula	Pl. 1.	Perdix coturnix	Pl. 8.
Thalassidroma pelagica	" 2.	Strix flammea	" 9.
Streptopelia collaris	" 3.	Buteo apivorus	" 10.
Oedipodites crepitans .	" 4.	Anas mollissima.....	" 11.
Perdix cinerea	" 5.	Scolopax rusticola	" 12.
Anas nigra	" 6.	Fulica atra	" 14.
Gallinula chloropus ..	" 7.	Cursorius isabellinus .	" 15.

PELZELN, A. VON. Reise der österreichischen Fregatte Novara, u. s. w. Vögel. [See under "GENERAL SUBJECT."]

Plate v. of this work represents the young of *Eudypetes chrysocome*.

OOLOGY.

BALCH, D. M. Notes on the Habits and Distribution of the Duck Hawk or American Peregrine Falcon in the Breeding-Season, and Descriptions of the Eggs. Proc. Essex Inst. iv. p. 153.

This paper we have not seen. We quote its title from the list of publications printed by the Institute.

ELLIOT, D. G. A Monograph of the *Tetraoninae* or Family of the Grouse. New York: 1865. Imp. fol.

Two of the plates in this work contain most excellent figures of the eggs of the following species:—

Tetrao urogallus	Pl. i. figs. 1, 2	Lagopus scoticus....	Pl. ii. figs. 6-9
Lyrurus tetrix	" 3, 4	Bonasa umbelloides	" 11-15
Dendragapus obscurus	" 5-7	— sylvestris.....	" 14, 13
— richardsoni	" 8-12	— sabinii.....	" 16
Canace canadensis	" 13-17	— umbellus.....	" 17-21
— franklini	" 18	Lagopus rupestris	
Pediceetes columbianus	" 19-21	(reinhardtii).....	" 22, 23
— phasianellus	" 22-25	— — (verus) ..	" 24, 25
Cupidonia cupido	" 26-30	— — (islandicus)	" 26
Lagopus albus	Pl. ii. figs. 1-5	— mutus	" 27-30

FATIO, V. L'Oomètre. Bull. Soc. Orn. Suisse, i. pp. 94-110, pl. iii.

The description of a very ingenious instrument, by means of which not only may the dimensions of an egg be accurately taken, but its actual shape can be expressed in an algebraical formula. The instrument would be of equal service to conchologists.

HOLTZ, L. Beobachtungen aus der Vogelwelt Neu-Vorpommerns. Journ. für Orn. 1865, pp. 100-128, 174-191.

This paper contains a very great quantity of facts from observations most carefully made, and nearly all relating to the breeding of the birds found in the district. Very precise details

are also given of the weight and size of many of their eggs. As a rule, however, the observations are not of a very important kind to the general ornithologist.

KUTTER, —. Ein Beitrag zur Fortpflanzungsgeschichte von *Gallinula pusilla*. Journ. für Orn. 1865, pp. 334-341.

An account of the breeding of the species named near Cottbus in Posen.

LORD, J. K. Catalogue of Birds' Nests and Eggs collected in North-west America. Proc. R. A. Instit. Woolwich, 1865, pp. 337-339.

The nidificatory habits of eighteen species are briefly described. (Cf. Ibis, 1866, p. 208.)

PELZELN, A. VON. Reise der österreichischen Fregatte Novara, u. s. w. Vögel. [See under "GENERAL SUBJECT."]

Plate vi. of this work contains figures of the eggs of the following species:—

Bubo maculosus.
Collocalia linchi.
Dryocæca subruficapilla.
 — *maculosa*.
Copsychus saularis.
Malacocercus griseus.
Laniarius boulboul.
Hyphantornis aurifrons.

Ploceus capensis.
Crithagra canicollis.
Phytotoma rara.
Megapodius nicobariensis.
Prion vittatus.
Sterna vittata.
Graculus gaimardi.
 — *carunculatus*.

Particulars of the mode of nidification of these and other species are to be found in the text.

RAMSAY, EDWARD P. On the Nests and Eggs of some New Zealand Birds. Ibis, 1865, pp. 154-157.

The species mentioned are *Eudynamis taitensis*, *Anthornis melanura*, *Rhipidura flabellifera*, *Creadion carunculatus*, and *Platycercus auriceps*.

— Notes on Birds breeding in the Neighbourhood of Sydney. Ibis, 1865, pp. 298-306. (Error corrected, Ibis, 1866, p. 127.)

This is in continuation of a series of papers in the same journal for former years. The species treated of now are *Pardalotus striatus*, *Chelidon arborea*, *C. ariel*, *Gymnorhina tibicen*, *Myiagra plumbea*, *Monarcha carinata*, *Corvus coronoides*, *Myzomela sanguinolenta*, and *Parra gallinacea*.

— Notes upon the Cuckoos found near Sydney. Proc. Zool. Soc. 1865, pp. 460-465.

The eggs of *Chalcites lucidus*, *Cuculus inornatus*, and *C. cineraceus* described.

RAMSAY, EDWARD P. Note on the Nidification of *Mirafra horsfieldi*. *Op. cit.* pp. 689, 690.

It seems to resemble that of the ordinary *Alaudide*.

SEIDENSACHER, E. Ueber das Ei des kurzbeinigen Sperbers, *Astur brevipes* s. *dussumieri*, *Falco badius*. (Cf. Zool. Record, i. p. 65.) Reprinted Journ. für Orn. 1865, pp. 464-466.

Eggs of *Phasianus sommeringi* and *Cerionis satyra* exhibited. P. L. Selater, P. Z. S. 1865, p. 256.

Eggs of *Elanoides furcatus*, *Nucifraga caryocatactes*, *Dichuncus strigirostris*, *Phalaropus fulicarius*, *Opisthocomus cristatus*, *Mareca americana*, and *Fulix affinis* were exhibited or described. A. Newton, P. Z. S. 1865, p. 256.

Eggs and nest of *Totanus ochropus* are figured. J. Gould, B. G. B. part viii.

Eggs and nest of *Cisticola schaniicola* are described and figured. G. Lunel, Bull. Soc. Orn. Suisse, i. pp. 9-30, pl. i.

ACCIPITRES.

VULTURIDÆ.

Vultur auricularis, from North-eastern Africa (*V. nubicus*, Smith), has the ear-wattle hardly at all developed and the occiput slightly feathered, differing in these respects from specimens from the Cape Colony. P. L. Selater, P. Z. S. 1865, p. 675.

Gyps africanus is the name bestowed upon African specimens hitherto confounded with *G. bengalensis*. They have the beak compressed, elongated, and quite black, and are of a greyish cream-colour. The species is supposed (Sitzungs. Akad. Wien, 1856, p. 256) to have been before designated *Vultur moschatus* by Duke Paul of Würtemberg. T. Salvadori, Gazz. Uffic. del Regno d'Italia, 1865, no. 126 (Adunanza della Classe di Sc. Fis. e Matemat., R. Accad. delle Scienze di Torino, 7 May, 1865).

Neophron peronopterus (P.), from Calcutta, has the whole bill and claws white. (This is the *Vultur ginginianus* of Latham. Cf. Ibis, 1866, pp. 283, 284.) P. L. Selater, P. Z. S. 1865, p. 675.

FALCONIDÆ.

The supposed occurrence of *Haliaetus albicilla* in North America (P. Z. S. 1863, p. 251) proves to be a mistake. The birds obtained in Nova Scotia and Newfoundland turned out to be *H. leucocephalus*. P. L. Selater, P. Z. S. 1865, p. 731.

Aquila navia is figured. J. Wolf, Zool. Sketches, 2nd series.

Aquila naevioides has been seen several times in Spain, and is figured in two stages of plumage. Lord Lilford, Ibis, 1865, pp. 172, 173, pl. v. This species, under the name of *A. adalberti*, has been before mentioned as occurring there. P. L. Selater, *tom. cit.* pp. 359, 360. (Cf. Ibis, 1863, p. 352.)

Milvago crassirostris, Pelz. (Sitzungs. Acad. Wien, 1861, p. 9) is further described and figured. A. v. Pelzeln, Reise Novara, Vögel, pp. 3-5, tab. i.

Polyborus auduboni is described as a new species from Texas and Mexico, founded on the type-specimen of the *P. vulgaris* and *P. brasiliensis* of Au-

dubon, *nec* Vieillot, *nec* (Gmel.), which are identical with *P. tharus* (Molina). From this last it differs by having the back and rump brownish-black in all stages of plumage, and the under tail-coverts nearly pure white, or with a few indistinct dark brown bars. Numerous examples of the newly recognized species are in the Smithsonian Collection. J. Cassin, Proc. Acad. Philad. 1865, p. 2.

Spilornis bacha (Daud.) certainly does occur in Western Africa. Whether it is identical with the Indian *S. bido* (Horsf.) is another matter. J. Cassin, Proc. Acad. Philad. 1865, pp. 2-4.

Limnaetus africanus is a new species from Western Africa. It bears a general resemblance to *L. cirrhatus* and *L. kieneri*, but has the tarsi much more thickly feathered. It has the upper parts black, the lower white. J. Cassin, Proc. Acad. Philad. 1865, pp. 4, 5.

Leucopternis princeps is a very fine new species from Costa Rica, very distinct in colouring from any other of the group. P. L. Sclater, P. Z. S. 1865, pp. 429, 430, pl. xxiv.

Buteo lineatus of North America has occurred in Scotland. E. C. Newcome, Ibis, 1865, p. 549.

Stringonyx anderssoni is the name proposed for a supposed new form from Damaraland, remarkable for its extremely wide gape, small bill destitute of a tooth, and the rudimentary pectination of the middle claw. [Identified with *Macherhampus alcinus*, Westerm., A. D. Bartlett, P. Z. S. 12 June, 1866.] J. H. Gurney, P. Z. S. 1865, p. 618. The paper will be published in the Zoological Transactions.

BRODRICK, W. Falconer's Favourites. London: 1865. Folio.

Half a dozen well-executed plates, with appropriate letterpress; of course from a falconer's point of view.

Falco peregrinus (♂ hornot. and ♀ juv.) is figured, W. Brodrick, Falconer's Favourites, pls. i. & v.

Falco barbarus shot in Holland in 1857. J. P. v. W. Crommelin, N. T. D. 1865, p. 243.

Falco aesalon is figured, W. Brodrick, Falconer's Favourites, pl. vi., and again with young, J. Gould, B. G. B. part vii.

Falco subbuteo is figured, W. Brodrick, Falconer's Favourites, pl. iv., and again J. Gould, B. G. B. part viii.

Falco eleonora: a good abstract of Dr. Krüper's account of this species (Zool. Record, i. p. 66) is given. A. Gindroz, Bull. Soc. Orn. Suisse, 1865, pp. 132-144.

Tinnunculus newtoni from Madagascar and *T. gracilis* from the Seychelles are considered to be identical with *T. punctatus* of Cuvier, whose habitat has been usually assigned to Mauritius. H. Schlegel, N. T. D. 1865, pp. 79, 80. An opposite opinion maintained, A. Newton, P. Z. S. 1865, p. 833. (Cf. Ibis, 1866, p. 211.)

Tinnunculus cenchris asserted to have occurred in Great Britain. E. Newman, Zool. 9846. (N.B. The assertion contradicted, Zool. 1866, p. 96).

"*Nisus brutus*, Pollen," is described as a new species from Mayotte, said to differ from all others in its system of coloration as well as by having a very

large head and bill in proportion to its size. The under parts are characterized by cross bands of a deep red tint. It belongs to the group which contains *Accipiter tinus*, *A. minullus*, and *A. erythropus*. [Qu. distinct from *A. madagascariensis*?] H. Schlegel, N. T. D. 1865, pp. 80, 81.

"*Astur brevipes*, Severzow" (Bull. Soc. Impér. Moscou, 1850, ii. pp. 234-239), has been identified as the species found breeding at Smyrna by Dr. Krüper (Zool. Record, i. p. 67), and by him referred to *Accipiter badius*. It is also the *A. sphenurus* of Mr. Tristram's "Report on the Birds of Palestine" (P. Z. S. 1864, p. 429), and identical with the *A. gurneyi* of Dr. Bree (B. Eur. iv. p. 390). P. L. Sclater, Ibis, 1865, pp. 341, 342.

Accipiter nisus, ♂ adult, and

Astur palumbarius, ♂ adult, are figured, W. Brodrick, Falconer's Favourites, pls. ii., iii.

Accipiter chilensis is announced as a new species, but it may be the "*A. erythronemia* [lege *erythrocnemius*], G. R. Gray," first characterized by Dr. Kaup (Isis, 1847, p. 954; Contrib. Orn. 1850, p. 64). Very full descriptions of both old and young are given, but no diagnosis whereby the reader may be assisted in forming an opinion of his own. R. A. Philippi and L. Landbeck, Ann. Univers. Chile, Apr. 1864; Arch. f. Naturgesch. 1864, i. pp. 41-47.

Accipiter equatorialis is described as a new species from Batchian and other localities in the Malayan Archipelago, larger than *A. rufitorques* and with different proportions and colours. It is smaller than *A. griseogularis*, and wants the bands that species has on the body, wings, and tail. A. R. Wallace, P. Z. S. 1865, pp. 474, 475.

Accipiter muelleri is a new species from Gilolo, very like *A. hiogaster*, but much larger, the throat less distinctly rufous, the under parts faintly banded with white, and having other points of difference. *Idem*, op. cit. p. 475.

Accipiter virgatus (Temm.), a specimen from Formosa described. R. Swinhoe, Ibis, 1865, pp. 108, 109.

Accipiter gularis and *A. trivirgatus* occur in Formosa. J. H. Gurney, Ibis, 1865, pp. 236, 547.

Microastur concentricus (Illig.), *M. gilvicollis* (Vieill.), and *M. macrorhynchus* are carefully described. The last is a species discovered by Natterer in Brazil, but which has hitherto remained undescribed. A. v. Pelzeln, Reise Novara, Vogel, pp. 8-12.

Circus aeruginosus, *C. cyaneus*, and *C. cineraceus*. Further observations in continuation of those noticed before (Zool. Record, i. p. 67). J. P. v. W. Crommelin, N. T. D. 1865, pp. 237, 238.

Circus wolfi is described and figured as a new species from New Caledonia, very similar to *C. maillardi* from the Comoros and Réunion, but differing in many minor characters. J. H. Gurney, P. Z. S. 1865, pp. 823, 824.

STRIGIDÆ.

ALTUM, B. Die Nahrung unserer Waldohreule. Journ. für Orn. 1864, pp. 429-434.

This article is in continuation of others by the author (J. f. O. 1863, pp. 41-46, and Ber. xiv. Versamml. D. O. G. pp. 30-34); and all show, by the best of all proofs, an examination of the pellets of bones, fur, and feathers

cast up by Owls, the enormous benefit these birds render to man by the destruction of *Muride* and *Arvicolide*, the remains of animals of these groups forming the great bulk of the examples examined.

Strix rosenbergi is an apparently new species from Celebes, approaching *S. castanops* and *S. personata* in size and the distribution of its colours. It is very different from *S. javanica*. H. Schlegel, N. T. D. 1865, pp. 181, 182.

Strix flammea. Evidence relating to the food of this species, agreeing in the main with the observations of Herr Jäckel and Dr. Altum. Troeschel, Verhandl. nat. Ver. preuss. Rheinlande und Westphalen, 1864, Correspondenzblatt, p. 102. The dark-coloured variety usually found in Denmark has occurred in England. H. Stevenson, Zool. p. 9495.

"*Uula nebulosa*" said to have occurred in Silesia (qu. *Syrnium uralense*?). F. Tiemann, J. f. O. 1865, p. 218.

Ketupa ceylonensis: further details of the singular discovery of this bird in Palestine. H. B. Tristram, Ibis, 1865, p. 261.

Noctua polleti is described as a new species from the north-west of Madagascar. In size and the spotting on the wings it resembles *N. maculata* from Australia, and is characterized in a striking manner by the lower parts being reddish-white banded with reddish-brown. H. Schlegel, N. T. D. 1865, pp. 81, 82.

The "conspecies" of *Noctua hirsuta* are treated of. *Idem*, op. cit. pp. 182, 183.

Noctua ochracea is an apparently new species from Celebes, on the whole like *N. philippensis*, but with a longer tail and a different system of coloration. *Idem*, op. cit. pp. 183, 184.

Noctua franseni is a new species from Waigiu, nearly as large as *N. strenua* from Australia, but differing from it in its system of coloration. *Idem*, op. cit. pp. 256, 257.

PSITTACI.

PLYCTOLOPHIDÆ.

Microglossa alecto, remarks on its osteology. W. K. Parker, P. Z. S. 1865, pp. 235-238.

Cacatua ophthalmica (Zool. Record, i. p. 68), the description reprinted. Ann. & Mag. N. H. 3rd ser. xv. pp. 73, 74.

Nasitera pusio is a new species from the Salomon Islands, larger than *N. pygmæa* from New Guinea, and easily to be distinguished by the colour of its head, face, and tail as well as the form of the latter. Some structural and anatomical peculiarities of the genus are also remarked on; the former are not such as to entitle it to a place among the *Plyctolophide*, and it should either rank with the true *Psittacide* or else stand as the type of a distinct group. P. L. Sclater, P. Z. S. 1865, pp. 620-622, pl. xxv.

PLATYCERCIDÆ.

Psephotus hematogaster, Gould (P. Z. S. 1837, p. 89), was, as now stated, founded on a specimen from the western part of Australia; but, a wrong

locality having originally been given, the name was soon after misapplied to the representative species from New South Wales, the distinctness of which was not immediately recognized, and this last was consequently figured under the name of the first by its describer (B. Austral. v. pl. 33). The mistake on being discovered was thought to be set right by Bonaparte, who, in a nominal list of the order (R. Z. 1854, p. 154), introduced, but without diagnosis, a *P. xanthorrhous* to the world, still leaving a *P. hæmatogaster*. Subsequently Mr. G. R. Gray misquoted (List B. Brit. Mus. part iii. sect. ii. p. 7) this word as "*hæmatorrhous*," which is now used by Mr. Gould as the name for the New South Wales species, while he terms the western one *P. xanthorrhous*, though it is the true *P. hæmatogaster*. It is to be hoped the other form may stand as *P. hæmatorrhous*. J. Gould, Handb. B. Austral. ii. pp. 62-64.

Platycercus auriceps, its nest and eggs described. E. P. Ramsay, Ibis, 1865, pp. 156, 157.

Ptistes is the name proposed for a new genus to comprehend the *Aprosmictus erythropterus* of Australia and a new species from the same country, as well as the *Platycercus vulneratus*, Wagler, from Timor. These are "sufficiently different in form and colouring to warrant their being separated from *Aprosmictus* and formed into a new genus They have a very laboured flight, consequent on the great size of their wings." No characters are given. J. Gould, Handb. B. Austral. ii. p. 37.

"*Ptistes coccineopterus*" is a new species from Port Essington, differing from the form found on the east coast (*Aprosmictus erythropterus*) by being smaller in all its measurements except those of the bill, which is larger, and being more richly coloured. J. Gould, Handb. B. Austral. ii. p. 39.

STRIGOPIDÆ.

Strigops habroptilus. A retranslation into German from 'The Ibis' of Dr. Haast's observations on this species (Cf. Zool. Record, i. p. 68). G. von Frauenfeld, J. f. O. 1864, pp. 458-464.

PSITTACIDÆ.

Palaornis alexandri: the statements of ancient writers respecting this bird noticed. F. Schlegel, Zool. Garten, 1865, pp. 470, 471.

Pittacula guilelmi III. (!) is a new species from Salwatty and New Guinea, allied to *P. desmaresti* and *P. diophthalma*, but with a rounded and not cuneiform tail. H. Schlegel, N. T. D. 1865, pp. 252, 253.

Conurus heinii is a new species from Bogota with a very peculiar form of bill, having a broad and comparatively large under mandible, rendering it the type of a proposed new section, *Gnathosittaca*. In general colouring it approaches the group *Pyrrhura*. J. Cabanis, J. f. O. 1864*, pp. 414-416.

Psittacus (Chrysotis) nattereri, is a new species brought from Brazil by Natterer, who in his notes rightly separated it from *C. thalassima* on account of its blue-green colouring. It is allied to *C. guatemalæ*; but that has a blue

* Not published till after March 1865.

forehead and upper part of the head, besides wanting the red shoulder. O. Finsch, J. f. O. 1864*, p. 411.

Chrysotis augustus, remarks on. P. L. Sclater, P. Z. S. 1865, pp. 437, 438.

Specimens from the island of Sanghir are intermediate in character between *Tanygnathus albirostris*, Wall. (P. Z. S. 1862, p. 336) (*Psittacus sumatranus*, Raffles), and *T. muelleri*; the former is therefore thought to be not a good species. H. Schlegel, N. T. D. 1865, p. 185.

Loriculus exilis is a new species, remarkable for its very small size and simple colouring, having no yellow about it and the red limited to the rump, upper tail-coverts, and a small spot on the breast. H. Schlegel, N. T. D. 1865, p. 185, 186.

TRICHOGLOSSIDÆ.

Chalcopsitta rubiginosa, Bp. (P. Z. S. 1850, p. 26, note, pl. 16). The true locality of this rare and beautiful species is now ascertained to be Puynipet, one of the Caroline Islands. A. von Pelzeln, Reise Novara, Vögel, p. 99.

Lorius (Eos) wallacii is *Eos cochinchinensis*, var., G. R. Gray (P. Z. S. 1861, p. 431), from Waigiou. It differs from *E. cochinchinensis* (Lath.), from Ternate and other places, by its narrow neck-band and its red hind-head and nape. O. Finsch, J. f. O. 1864*, pp. 411, 412.

PICARIÆ.

PICIDÆ.

Picus khan. The characters of this species described as new in 1863 or 1864 are repeated. F. de Filippi, Viagg. Pera. p. 350.

Picus martius, its disputed claims to be reckoned a "British Bird." E. Newman, Zool. pp. 9626, 9627. J. E. Harting, *op. cit.* pp. 9730-9732. E. H. Rodd, *op. cit.* pp. 9783, 9847.

Gecinus erythroprius is a new species sent from Cochin China by M. Germain, easily distinguishable from its congeners by its red rump. D. G. Elliot, Nouv. Arch. du Muséum, Bull. i. p. 76, pl. iii.

TROGONIDÆ.

Harpactes hodgsoni, *H. diardi*, *H. orescius*, *H. reinwardti*, and *H. mackloti* are figured. J. Gould, B. As. part xvii.

BUCCONIDÆ.

Monasa pallescens is figured. J. Cassin, Proc. Acad. Philad. 1864, pl. 4.

LEPTOSOMATIDÆ.

SCLATER, P. L. On the structure of *Leptosoma discolor*. Proc. Zool. Soc. 1865, pp. 682-689.

A very important monograph of this curious bird. After treating of the bibliography of the species, the author remarks

* Not published till after March 1865.

on the external characters of the head, of which, with the cranium, life-size figures are given. He then proceeds to consider the pterylogy of the species, the body-feathers of which have a long downy auxiliary plume, and describes the powder-down patches placed one on each side of the rump, this being the only bird of the order *Picariæ* in which such are known to exist. He then figures and describes the sternum and tongue, and remarks on the structure of the feet. The result of all these researches seems to show that *Leptosoma* can no longer be left among the *Cuculidæ*, and that its natural position is as the type of a separate family near the *Coraciidæ*, with which it is perhaps connected by *Brachypteracias*.

Leptosoma discolor (sc. *afér*). Mr. Selater's opinion as to its affinities agreed with. A. Newton, P. Z. S. 1865, p. 834.

MEROPIDÆ.

Merops philippensis, L., occurs also in Formosa. R. Swinhoe, Ibis, 1865, pp. 230, 231.

ALCEDINIDÆ.

SCHLEGEL, H. De Vogels van Nederlandsch Indië, &c. Monographie 2. Ijvogels. Haarlem : 1864, 4to, pp. 68, tabb. 16, figg. 67 !

The general scope of this work, which should be studied in conjunction with the author's catalogue (Mus. P.-B. *Alcedines*) published in 1863, has been briefly indicated under the heading "Australian Region." Thirty nine species or conspecies are described, and all but two (*Dacelo cinnamomina* and *D. nigrocyanæa*) figured. These are, according to Prof. Schlegel's nomenclature, as follows :—

Alcedo euryzona, tab. i. figg. 1, 2.
 — minor, tab. i. fig. 3.
 — — moluccensis, tab. i. fig. 4.
 — melanorhyncha, tab. ii. fig. 1.
 — leucocephala, tab. ii. figg. 2-4.
 — beryllina, tab. iii. fig. 1.
 — meninting, tab. iii. figg. 2, 3.
 — azurea, tab. iii. fig. 4.
 — solitaria, tab. iii. fig. 5.
 — pusilla, tab. iii. fig. 6.
Dacelo macrorhina, tab. iv. fig. 1.
 — gaudichaudi, tab. iv. figg. 2-4.
 — pulchella, tab. v. figg. 1, 2.
 — melanops, tab. v. figg. 3, 4.
 — cyanotis, tab. vi. figg. 1, 2.
 — torotoro, tab. vi. figg. 3, 4.
 — princeps, tab. vii. 3 figg.
 — coromandeliana, tab. viii. fig. 1.
 — concreta, tab. viii. figg. 2, 3.
 — fulgida, tab. ix. fig. 1.

Dacelo pileata, tab. ix. fig. 2.
 — melanoptera, tab. ix. figg. 3, 4.
 — sancta, tab. x. fig. 1.
 — coronata, tab. x. fig. 2.
 — chloris, tab. x. figg. 3, 4.
 — forsteri, tab. xi. fig. 1.
 — funebris, tab. xi. fig. 2.
 — albicilla, tab. xi. figg. 3, 4.
 — lazuli, tab. xii. figg. 1, 2.
 — diops, tab. xii. figg. 3, 4.
 — dea, tab. xiii. 5 figg., tab. xv. figg. 1, 2.
 — sabrina, tab. xiv. 5 figg., tab. xv. fig. 3.
 — hydrocharis, tab. xv. fig. 4.
 — rutidorsa, tab. xvi. fig. 1.
 — rubra, tab. xvi. fig. 2 (errore "3").
 — cajeli, tab. xvi. fig. 3.
 — lepida, tab. xvi. figg. 4, 5.

It will thus be seen that, in the author's opinion, neither the 1865. [VOL. II.]

number of toes nor of rectrices affords a sufficient generic character. Under the name *Dacelo dea* Prof. Schlegel includes, for various reasons, which he states at some length, *Tanysiptera nais*, *T. galatea*, *T. nympha*, *T. iris* (lege *isis*), *T. margarethæ*, and *T. acis*, and to *Dacelo sabrina* he also refers *T. doris*.

SCHLEGEL, H. Notice sur le sous-genre *Tanysiptera*. Nederl. Tijdschr. Dierk. 1865, pp. 269-277.

In this paper the author reiterates his opinion as expressed in the work last noticed respecting *Tanysiptera dea* and its nearest allies, strengthening it by adducing a number of facts relating to the geographical distribution of these pretended species, and, in conclusion, animadverts on the injury done to science by the irrational acts of many of its followers at the present day.

Dacelo (?) *fallax* is a new species from Celebes with four toes. H. Schlegel, N. T. D. 1865, pp. 187, 188.

Alcedo ispida, with eggs and section of nest, is figured. E. Bettoni, Uco. Lombard. fasc. ii.

CAPITONIDÆ.

Capito quinticolor is a new species from New Granada, resembling *C. maculicoronata*, but easily to be distinguished by its red head and nape. D. G. Elliot, Nouv. Arch. du Muséum, Bull. i. pp. 76, 77, pl. iv. fig. 1.

Tetragonops frantzii has been met with in a new locality in Costa Rica. A. v. Frantzius, Ibis, 1865, p. 551.

BUCEROTIDÆ.

Toccus elegans is a new species from Benguela, nearly allied to *T. flavirostris*, but differing in the colour of the upper mandible, wing-coverts, and remiges. G. Hartlaub, P. Z. S. 1865, pp. 86, 87, pl. iv.

Toccus monteiri is another new species from the same country, allied to *T. limbatus*, but much smaller and widely-different in the structure of the bill and the colour of the wing-coverts and rectrices. *Idem*, op. cit. p. 87, pl. v. J. J. Monteiro, op. cit. p. 91.

UPUPIDÆ.

Upupa decorata is a new species from Benguela, with a crest like *U. capensis*, but the rufous of the underparts extending further down, and the white part of the secondaries has two black bars. G. Hartlaub, P. Z. S. 1865, p. 86; J. J. Monteiro, op. cit. p. 94.

Irisor erythrorhynchus and *I. senegalensis* have been met with in the same flock, and are probably specifically identical. C. J. Andersson, Ibis, 1865, pp. 549, 550.

MUSOPHAGIDÆ.

Corythaix livingstonii, rather abundant in the Celis country (W. Africa). Its habits in confinement. J. J. Monteiro, P. Z. S. 1865, p. 92.

Schizorrhis concolor (?) from Benguela, almost specifically distinct from Natal specimens, being paler, more grey, less brownish, and the sides of the head whitish. G. Hartlaub, P. Z. S. 1865, p. 88.

CUCULIDÆ.

ROWLEY, GEORGE DAWSON. On certain Facts in the Economy of the Cuckoo (*Cuculus canorus*). Ibis, 1865, pp. 178-186, pp. 860, 861.

This contains a notice of Dr. Baldamus's remarkable paper (Naumannia, 1853, p. 307). The author considers that naturalist's theory of a similarity existing between the eggs of *Cuculus canorus* and those of the species into whose nests they are introduced not to be proved. In some other respects his own coincides with the opinion of Dr. Baldamus. After a statement of the various birds which are recorded as having fostered Cuckoo's offspring, Mr. Rowley adds to the "canons" laid down by Dr. Baldamus three principles (1), that the period of oviposition in England is between 5 May and 19 July (2), that traces of a scuffle between the Cuckoo and the owner of the nest often appear; and (3) that it is not usual to find the full complement of eggs of the owner after the Cuckoo has introduced hers.

VIAN, JULES. Causeries ornithologiques. Rev. et Mag. de Zool. 1865, pp. 40-47, 74-79, 129, 130.

Some curious particulars relating to the economy of *Cuculus canorus* are recorded, which we have already mentioned while noticing these papers under the "General Subject."

Cuculus monosyllabicus is a new species from Formosa. R. Swinhoe, Ibis. 1865, pp. 545, 546.

Chalcites lucidus, *Cuculus inornatus*, and *C. cineraceus* of Australia; many details of their habits, especially when breeding, given. E. P. Ramsay, P. Z. S. 1865, pp. 460-465; Ann. & Mag. N. H. 3rd ser. xvi. pp. 290-295.

Eudynamis taitensis, its eggs described. E. P. Ramsay, Ibis, 1865, p. 155.

CAPRIMULGIDÆ.

Caprimulgus poliocephalus, Rüpp. (Neue Wirbelth. p. 106; System. Uebers. Vög. N.-O. Afrika's, p. 15, tab. iv.), is said to be the only species found in Mosambique. G. G. Bianconi, Mem. Accad. Sci. Bologna, iv. p. 523.

Hydropsalis ypanemæ and *H. pallescens* are undescribed species, discovered in Brazil by Natterer. The first generally resembles *H. forcipata*, but is smaller and has the three middle pairs of rectrices differently marked; the second is like *H. torquata*, but is larger and paler in colour. A. v. Pelseln, Verhandl. zool.-bot. Gesellsch. Wien, 1865, pp. 985-988.

CYPSELIDÆ.

SCLATER, P. L. Notes on the genera and species of *Cypselidæ*. Proc. Zool. Soc. 1865, pp. 593-617, pls. xxxiii., xxxiv.

The author's opinion of the systematic position of the family agrees with that of L'Herminier, Nitzsch, and Burmeister. He proceeds to describe and figure the sternum in the genera *Cypselus*, *Chatura*, *Collocalia*, and *Dendrochelidon*, and then treats of the structure of the foot. Here he shows that *Panyptila* agrees with *Cypselus* in having the abnormal number of three phalanges in each digit, except the hallux, which has the ordinary two.

These two genera, therefore, he places together in the subfamily *Cypselinæ*, while *Chætura*, *Cypseloides*, *Collocalia*, and *Dendrochelidon*, which all have toes of normal structure, he groups in the subfamily *Chaturinæ*. To these remarks is appended a synonymatic, diagnostic, and geographical list of all the species of the family, forty-eight in number (of which two are described for the first time), the whole paper forming a most valuable contribution to ornithology.

Cypselus infumatus is a new species from Borneo, allied to *C. batassiensis* from India, but of a deeper colour and with a shorter and less-forked tail. P. L. Sclater, P. Z. S. 1865, p. 602.

Cypselus gabilaensis, Antinori, notes on its habits. H. B. Tristram, Ibis, 1865, pp. 76-79. Identical with *C. affinis*, Gray, and *C. abessinicus*, Streubel. P. L. Sclater, Ibis, 1865, pp. 234, 235, and P. Z. S. 1865, pp. 603, 604.

Cypselus apus, its autumnal migration. A. v. Homeyer, J. f. O. 1865, pp. 311-314.

Cypselus squamatus, Cassin, is figured. P. L. Sclater, P. Z. S. 1865, pp. 605, 606.

Chætura biscutata is a species brought from Brazil by Natterer, like *C. zonoris*, but with a whitish face and the sides of the neck the same colour as the back. P. L. Sclater, P. Z. S. 1865, p. 609, pl. xxxiv.

Collocalia linchi is figured with its nest. A. v. Pelzeln, Reise Novara, Vögel, tab. ii. fig. 2.

TROCHILIDÆ.

BURMEISTER, H. Sobre los Picaflors descriptos por D. Felix de Azara. Anales del Mus. Publ. de Buenos Aires, 1864, pp. 67-70. Journ. für Orn. 1865, pp. 225-229.

The *Trochilidæ* described by Azara are thus referred by the author:—no. 289 to *Agyrtria albiventris*; nos. 290, 291 to *Hylocharis ruficollis*; nos. 292, 293, 294 to *Hylocharis flavifrons**; nos. 295, 296 to *Lampornis mango*; nos. 297, 299 to *Helimaster angelæ*; no. 298 still remains doubtful. (Cf. Ibis, 1865, p. 535.)

Campylopterus inornatus is identical with *Helimaster angelæ*. H. Burmeister, P. Z. S. 1865, pp. 466, 467.

Chalybura eneicauda is described as a new species from Venezuela resembling *C. buffoni* and *C. urochrysea*, but differing from either chiefly in having the upper surface of the tail only decidedly bronzed. G. N. Lawrence, Proc. Acad. Philad. 1865, pp. 38, 39.

Chalybura carnioli (lege *carnioli*) is described as a new species from Costa Rica, but, in a MS. marginal note of the author's, identified with *C. melanorhoa*, Salvin, P. Z. S. 1864, p. 585. G. N. Lawrence, *ut supra*, p. 39.

Eupherusa niveicauda is a new species from Costa Rica, smaller and with

* Referred to *H. bicolor* in the letterpress, but corrected as above in a MS. marginal note of the author's. However, in P. Z. S. 1865, p. 467, it is identified with *Chlorostilbon phaethon*.

a shorter bill than *E. eximia*, lighter in colour, and having the white on the rectrices (which are narrower than in that species) extending over both webs. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 134, 135.

Panychlora parvirostris is described as a new species from Costa Rica, having a much smaller bill than *P. alicia*, the upper tail-coverts golden orange, and the rectrices white at the base. G. N. Lawrence, Proc. Acad. Philad. 1865, p. 39.

PASSERES.

PITTIDÆ.

WALLACE, A. R. Remarks on the Habits, Distribution, and Affinities of the genus *Pitta*. Bull. Soc. Orn. Suisse, 1865, pp. 115-121.

This is a very complete abstract of the paper we noticed last year (Zool. Record, i. pp. 73-74), by M. A. Humbert.

Pitta atricapilla sanghirana is the name applied to a specimen from Sanghir, resembling *P. melanocephala* from Borneo, and only to be distinguished from it by the deeper and less-bright green colours, as well as the metallic tints of the wing-coverts and the deeper and less-silvery blue-green under tail-coverts. H. Schlegel, N. T. D. 1865, p. 190.

FORMICARIIDÆ.

Thamnophilus nigricristatus is described as a new species from the Isthmus of Panama, differing from *T. dolatus* and *T. affinis* in having no white in the crest. G. N. Lawrence, Proc. Acad. Philad. 1865, pp. 107, 108. (Cf. Ibis, 1866, pp. 119, 120, where it is suggested that the supposed new bird is identical with *T. radiatus*.)

Thamnophilus hollandi is described as a new species from Greytown, Nicaragua, allied to *T. melanurus*, *T. transandeanus*, and *T. melanocrisus*, but is larger, and has a more powerful bill than any of them. It also differs from the first two by its black crissum, and from the last by the black on the side of the head terminating in a line with the rictus. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 181, 182.

An example of *Thamnophilus albicans*, Lafr. (R. Z. 1844, p. 22), a species not recognized by Mr. Sclater (P. Z. S. 1858, pp. 202-224), exists in the Turin Museum, and corresponds perfectly with the original description. It is from Bahia. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

Thamnistes affinis is described as a new species nearly allied to *T. anabatinus*, but smaller, and having the interscapular spot white instead of orange. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

Dysithamnus striaticeps and *D. rufiventris* are new species from Costa Rica and Panama respectively. The first somewhat resembles *D. semicinereus*, but is browner above, has a much larger bill, and differs from all others of the genus in its striated head, as does the last in its rufous under plumage. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 130, 131.

Myrmotherula albigula is described as a new species from Panama. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 131, 132.

Myrmotherula minor is a new species from Brazil, nearly allied to *M. brevicauda*, but smaller. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

Formicivora schisticolor is described as a new species from Costa Rica. G. N. Lawrence, Ann. Lyc. N. Y. 1865, p. 173.

Myrmeciza stictoptera is described as a new species from Costa Rica, allied to *M. exul* and *M. lemosticta*, but differing from the former in its narrower bill, in having a concealed white dorsal patch, and in the middle wing-coverts being black, with larger and more conspicuous spots; from the latter in being larger, and having the throat unspotted, white shoulders, and wing-coverts as just mentioned. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 132, 133.

Myrmeciza marginata is described as a new species from Brazil. It differs from *M. ruficauda* by having the top of the head and neck olivaceous lead-coloured, the wing-coverts margined with white, and in other respects. It is very like *M. hemimelana*, but differs from it in the points just mentioned, and by having a uniformly reddish belly. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

Hypocnemis (?) *striativentris* is a new species from Brazil. It has the typical form of that genus, but wants the hidden interscapular spot. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

MENURIDÆ.

Memura superba in confinement. G. Bennett, P. Z. S. 1865, p. 59; Ann. & Mag. N. H. 3rd ser. xvi. pp. 53, 54.

PTEROPTOCHIDÆ.

Pteroptochus castaneus is a new species from Chili, very like *P. tarnii*, but having the forehead to the crown, and thence a broad streak over the eyes to the nape, with the chin, throat, and breast, chestnut-brown, and the back olive-brown. R. A. Philippi and L. Landbeck, Arch. f. Naturgesch. 1865, i. pp. 56-58.

DENDROCOLAPTIDÆ.

PHILIPPI, R. A., and LANDBECK, C. L. "Die Lerchen Chiles." Arch. f. Naturgesch. 1865, i. pp. 58-73.

Under this title the authors treat of six birds, which have undoubtedly some apparent resemblance to the family *Alaudidæ*. Three of them they refer to the genus *Certhilauda*, and the other three to *Geobamon*, Cab. (J. f. O. 1860, p. 249, note).

The first is *Geositta cucicularia* (Bp. ex Vieill.); the next,

Certhilauda (potius *Geositta* ?) *frobensii* from Peru, described as a new species, characterized by having the outer rectrix entirely white, with the exception of a dark spot near the tip (*op. cit.* pp. 62, 63); the third

Certhilauda (potius *Geositta* ?) *isabellina* from Chili, described as a new species, to be known by its bill being as long as the tarsus, and curved, breast unspotted, base of the tail whitish-red (*op. cit.* pp. 63-66).

Of the birds referred to *Geobamon*, the first is *G. rufipennis*, Burm.; the next

Geobamon fasciata, described as a new species, having most of the wing- and tail-feathers of a lively rust-red, with broad black cross bars at the end (*op. cit.* pp. 68-73);

The third is the *Certhilauda nigrofasciata* of Lafresnaye.

Synallaxis nigrifumosa is described as a new species, from Greytown, Nicaragua, much like *S. pudica*, but having the chestnut a little darker and brighter, and the other colours very much darker and of quite different shades. G. N. Lawrence, Ann. Lyc. N. Y. 1865, p. 181.

Philydor rufobrunneus is described as a new species from Costa Rica. G. N. Lawrence, Ann. Lyc. N. Y. 1865, p. 127.

Anabazenops lineatus is described as a new species from Costa Rica. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 127, 128.

Margarornis rubiginosa and *M. guttata* are described as new species from Costa Rica and Ecuador respectively. The first differs from *M. squamigera* in having a larger bill, shorter wings and tail, and in being darker in colour above, with very inconspicuous spots. The second differs from both the other species mentioned in the decided spots of its upper plumage; it partially resembles *M. brunnescens*, but has the lower part of the back, tail, and outer quill-edges rufous. A possible third species is also mentioned, which is proposed to be called *M. brunneicauda*. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 128-130.

MELIPHAGIDÆ.

HARTLAUB, G. Monographischer Versuch über die Gattung *Zosterops*. Journ. für Orn. 1865, pp. 1-30.

This careful monograph treats first of the systematic position, the geographical distribution, and the habits of birds of this form, to which follows a full descriptive and synonymatic list of the fifty-two species known to the author, grouped geographically, the result of this arrangement showing that eleven species are African, eleven Asiatic, six Australian, fifteen Polynesian, and one of uncertain habitat, besides eight which are placed under other generic names, *Oreosterops*, *Heleia* (qu. *Helia*?), gen. nov., *Malacirops*, and *Speirops* (qu. *Spirops*?). Three more species, *Zosterops obscura*, H. & J., *Z. ambigua*, Sw., and *Z. (?) glaucura*, Reich., remain still doubtful. This paper is of the highest value.

Zosterops sundevalli is the name proposed for *Z. lateralis*, Sund. (nec Temm.), from Caffraria. *Idem*, *op. cit.* p. 8, 9.

Zosterops tenella is the name proposed for *Z. aurifrons*, Heugl. (nec Temm., nec Wall.), from the north-eastern part of Central Africa. *Idem*, *op. cit.* p. 11.

Zosterops heuglini is the name proposed for *Z. pallescens*, provisionally described by Heuglin (Cf. Zool. Record, i. p. 75). *Idem*, *op. cit.* p. 11.

Heleia (qu. *Helia*?) is a new genus established for the reception of two species in the Leyden Museum. It has a strong bill, stout feet, spotted plumage, and a long rounded tail. *Idem*, *op. cit.* pp. 8, 26.

H. muelleri and *H. frigida* are new species from Timor and Sumatra respectively, standing in the Leyden Museum as "*Zosterops frontalis*, Müll.," and "*Z. frigida*, Müll." The former is the larger, the plumage above greenish-grey, with the feathers on the top of the head black, bordered with yellowish; the latter is smaller, the plumage above brownish-olive, the top of the head dull crocus-yellow, with blackish longitudinal spots. *Idem*, *op. cit.* pp. 26, 27.

Zosterops rufilata is a new species in M. J. Verreaux's collection from an unknown locality. *Idem*, *op. cit.* pp. 29, 30.

"*Zosterops flavirons*, Pollen," is described as a new species from Mayotte. It is not the same as *Z. flavifrons*, Gray, and Hartlaub *ex* Latham; and if distinct from all others, as appears to be likely, it will require a new specific name. H. Schlegel, N. T. D. 1865, p. 87.

Stigmatops is the name proposed for a new genus to receive *Glyciphila ocularis* and *G. subocularis* (now once more separated from the former) of Australia, and some other species from the islands to the northward. No characters are given. J. Gould, *Handb. B. Austral.* i. p. 500.

Ptilotis rostrata is a new species from New Guinea, Waigiou, and Mysol, differing from *P. megarhynchus* from Aru by wanting the yellow ring round the eye and the markings of the under surface, as well as by the remarkably serrated bill. A. R. Wallace, P. Z. S. 1865, p. 478.

Anthornis melanura, its nest and eggs described. E. P. Ramsay, *Ibis*, 1865, pp. 154, 155.

Myzomela sanguinolenta, its nest and eggs described. E. P. Ramsay *Ibis*, 1865, pp. 304, 305.

NECTARINIIDÆ.

A species of *Nectarinia* allied to *N. eboensis*, but distinct, from the neighbourhood of Lagos, is mentioned, but not described. T. J. Moore, *Proc. Lit. & Philos. Soc. Liverpool*, xix. p. 225.

Nectarinia flavostriata is a new species from Celebes, very near *N. siparaja*, but larger, and having a yellow-striped throat, red-margined quills, blue tail-coverts, darker under surface, and shorter tail. A. R. Wallace, P. Z. S. 1865, pp. 478, 479, pl. xxix. fig. 2.

Nectarinia porphyrolema and *N. grayi* are two new species, the first from Macassar, the second from Menado. *Idem*, *op. cit.* p. 479.

Nectarinia osea from Palestine, male, female, and nest, is figured and its breeding-habits described at length. H. B. Tristram, *Ibis*, 1865, pp. 72-76, pl. ii.

Nectarinia (Arachnechthra) insignis is a new species from Penang, intermediate between *A. lotenia* and *A. asiatica*, differing from either in its green crown and purple breast and abdomen. J. Gould, P. Z. S. 1865, pp. 663, 664.

Nectarinia australis, abundant near Port Denison, Queensland. Notes respecting its nidification. E. P. Ramsay, *Ibis*, 1865, pp. 85, 86.

Elthopyga lodoisia is a new species, with a violet crown, a yellow rump, and grey abdomen. T. Salvadori, *Ibis*, 1865, pp. 548, 549.

COTINGIDÆ.

The species of the genus *Lipaugus* are remarked on. T. Salvadori, Atti Soc. Ital. Sc. Nat. vii. 4 Sept. 1864.

The four known species of *Chasmorhynchus* are described, and *C. tricarunculatus* is figured. O. Salvin, Ibis, 1865, pp. 90-95, pl. iii.

AMPELIDÆ.

Prionochilus aureolimbatus is a new species from North Celebes. A. R. Wallace, P. Z. S. 1865, p. 477, pl. xxix. fig. 1.

Pachycephala brunnea is a new species from the Banda Islands and Salwatty, but the specimen from the first locality is rather lighter-coloured on the head and brighter on the back. A. R. Wallace, P. Z. S. 1865, p. 478.

Pardalotus affinis occurs also in Australia: differences in its plumage and that of *P. punctatus* and *P. striatus* pointed out. Nest and eggs of the latter described. E. P. Ramsay, Ibis, 1865, pp. 298, 299.

HIRUNDINIDÆ.

DELAHARPE, J. Renseignements sur la migration des hirondelles Bull. Soc. Vaud. 1864, pp. 111-126, and 1865, p. 168.

These observations are made in connexion with those of Ritter von Frauenfeld (Zool. Record, i. pp. 40, 41).

Nest and eggs of *Chelidon arborea* and *C. ariel* described. E. P. Ramsay, Ibis, 1865, pp. 299, 300. Error corrected, *Id. op. cit.* 1866, p. 127.

Hylochelidon is the name proposed for a new genus to receive the *Chelidon arborea* of Australia and another species from Timor, which are stated to nidify in the holes of trees without building any real nest, to have bare tarsi, thus separating them from *Chelidon*, and also to differ, though in what way is not mentioned, from *Petrochelidon*. J. Gould, Handb. B. Austral. i. p. 111.

Lagenoplastes is the name proposed for another new genus, to receive the *Chelidon ariel* of Australia, and probably another species from India. The former builds a retort-shaped nest. "What the members of the genus *Hylochelidon* are to the Swallows, those of the present are to the Martins, from which they differ in their diminutive and bare tarsi, and from the American *Hylochelidons* [?] in their more feeble structure and colouring." J. Gould, Handb. B. Austral. i. pp. 112, 113.

Hirundo rufula, its habits in Palestine. H. B. Tristram, Ibis, 1865, p. 79.

Phæoprogne, *Notiochelidon*, *Pygochelidon*, and *Callichelidon* are proposed subgenera; the first of *Progne*, the second and third of *Atticora*, with *A. pileata* and *A. cyanoleuca* as their respective types, and the fourth of *Hirundo*, with *H. cyanooviridis* as its type. The actual type of *Phæoprogne* is not stated; but *P. fusca* (Vieill.) and *P. tapera* (L.) are referred to it. S. F. Baird, Rev. Am. B. pp. 269-271, 283-286, 294, 303, 305, 306, 308.

Progne elegans is described as a new species from Buenos Ayres and Brazil, nearly allied to *P. purpurea* (L.). The adult male steel-blue all over, the female and immature male uniform brown or greyish-brown beneath, with the edges of the feathers paler. It is supposed to be the *P. purpurea* of Darwin, B. 'Beagle,' p. 38. S. F. Baird, *op. cit.* pp. 274, 275, 276, note.

Progne cryptoleuca from Cuba is another species nearly allied to *P. purpurea*, but with more pure though concealed white about the anal region and on the anterior part of the rump. The wings and tail more highly glossed, and the latter somewhat more deeply forked. S. F. Baird, *op. cit.* pp. 273-277.

Progne furcata from Chili is a third species allied to *P. purpurea*, but with the anal feathers dark brown at base. Wings and tail dull. The latter deeply forked. S. F. Baird, *op. cit.* pp. 273-278, note.

Progne leucogaster is described as a fourth new species, from Southern Mexico, Central America, and probably the north-eastern part of South America, and is the *P. dominicensis* of most of the lists of birds from those regions. It differs from that bird, however, being brownish beneath (with the exception of the white belly, the shafts of the feathers on which are dusky), a character possessed also by *P. domestica* (Vieill.), but this last is much larger. S. F. Baird, *op. cit.* pp. 274, 282, 283, notes.

A variety of *Atticora cyanoleuca* from Costa Rica, and south along the Andes to Chili, is described under the name *montana*. S. F. Baird, *op. cit.* pp. 310, 311.

Stelgidopteryx fulvigula is described as a new species from Costa Rica. Its conspicuous light rump distinguishes it from all its allies except *S. uropygialis*, than which it is smaller and darker. S. F. Baird, *op. cit.* p. 318.

ORIOIDÆ.

Details of some specimens belonging to different species of the black-headed section of the genus *Oriolus* from Africa and Asia are given. T. Salvadori, Atti Soc. Ital. Sc. Nat. 4 Sept. 1864.

Oriolus galbula is figured. J. Gould, B. G. B. part vii; O. J. Sundevall, Sv. Fogl. pl. lxvii.

VIREONIDÆ.

Hylophilus acuticaudus is a new species from Venezuela, differing in its narrow pointed rectrices from all others of the genus that the author has seen. G. N. Lawrence, Proc. Acad. Philad. 1865, pp. 37, 38.

TYRANNIDÆ.

Arundinicola citreola is described at great length as a new species from Chili, but apparently only differs in a very slight degree from the *A. flaviventris* of D'Orbigny. L. Landbeck, Ann. Univers. Chile, April 1864; Arch. f. Naturgesch. 1864, i. pp. 58-62.

PHILIPPI, R. A., and LANDBECK, C. L. Monographie der Südamerikanischen Muscisaxicolinen. Arch. f. Naturgesch. 1865, i. pp. 74-109.

Fifteen species of the genus *Muscisaxicola* are discriminated and described at considerable length, four of them, all from the Chilian Cordilleras, as new, namely:—

M. cinerea, known by having all the upper surface of a pale ash-grey (*op. cit.* pp. 80-82).

M. rubricapilla, olive-brown on the upper part of the head, with dark rusty-red central spots, the back greyish-brown (*op. cit.* pp. 90-95).

M. flavivertex, having the first and third remiges of equal length and a large pale rusty-yellow spot on the head (*op. cit.* pp. 98-101).

M. nigrifrons, with the forehead and middle of the crown black and the bill much curved downwards (*op. cit.* pp. 101-104).

Obs.—Mr. Sclater has some remarks on this paper (*Ibis*, 1866, pp. 56-59), wherein he identifies *M. flavivertex*, above-mentioned, with *M. rufimucha*, Lafresnaye, and suspects *M. nigrifrons* to be the same as *Ptyonura frontalis*, Burmeister.

Anæetes cristatellus is a new species from Hayti. T. Salvadori, *Atti Soc. Ital. Sc. Nat.* 4 Sept. 1864.

Elainea frontalis is described as a new species from Costa Rica, in its upper plumage much like *E. subpagana*, but having the throat and breast dull greenish-olive and the abdomen pale yellow. G. N. Lawrence, *Ann. Lyc. N. Y.* 1865, pp. 173, 174.

Elainea chiriquensis and *E. semiflava* are described as new species from Chiriqui, New Granada; the former is somewhat like *E. subpagana*, but smaller and of a duller olive above, the breast and the sides cinereous, and the abdomen duller and paler. *Idem*, *op. cit.* pp. 177, 178.

Rhynchocyclus cerviniventris is a new species from Brazil. T. Salvadori, *Atti Soc. Ital. Sc. Nat.* 4 Sept. 1864.

Myiobius rufescens is described as a new species from Brazil. Very like *M. nœvus*, but smaller. *Idem*, *op. cit.*

Pyrocephalus mexicanus perhaps not distinct from *P. rubineus*. *Idem*, *op. cit.*

Mitrephorus aurantiiventris is a new species from Costa Rica, much resembling *M. phæocercus*, but smaller and above greener, and with the abdomen and sides bright orange-yellow. G. N. Lawrence, *Ann. Lyc. N. Y.* 1865, p. 174.

Empidonax pygmaeus is indicated as a new species from Arizona. E. Coues, *Ibis*, 1865, p. 537. (Renamed *Mitrephorus pallascens*, *Idem*, *P. Ac. Phil.* Jan. 1866.)

Empidonax flavescens, from Costa Rica, is described as new species not much like any other of the genus. G. N. Lawrence, *Ann. Lyc. N. York*, 1865, p. 133.

Contopus lugubris is described as a new species from Costa Rica, somewhat resembling *C. richardsoni*, but very much darker as well as larger. G. N. Lawrence, *Ann. Lyc. N. York*, 1865, p. 134.

Myiarchus venezuelensis is described as a new species from Venezuela, nearly allied to *M. panamensis*, but is smaller and has bright rufous margins to the rectrices, besides other points of difference. More perfect specimens of the last-named bird have also been received, enabling the author to give further details of its plumage. G. N. Lawrence, *Proc. Acad. Philad.* 1865, p. 38.

DICRUIDÆ.

Dicrurus waldeni is a new species from Mayotte. In the form of the bill and in the texture and colour of the plumage it resembles *D. forficatus* from Madagascar and *D. oristatus* from Zambesia, but it has no crest. In the form of the tail it resembles the Asiatic group of which *D. macrocercus* is the

type. It is possible that this new species is the *D. forficatus* of Sclater (Ibis, 1864, p. 299), from Joanna. H. Schlegel, N. T. D. 1865, pp. 86, 87.

Dicrurus leucops is described as a new species from Celebes, exactly like *D. pectoralis* in coloration, except the irides, which are milk-white. A. R. Wallace, P. Z. S. 1865, p. 478.

LANIIDÆ.

Dryoscopus guttatus is a new species from Benguela. G. Hartlaub, P. Z. S. 1865, p. 86; J. J. Monteiro, *op. cit.* p. 93.

Artamus melanops is a new species from South Australia, most nearly allied to *A. albibentris*, but having the under tail-coverts jet-black. It is smaller than *A. cinereus* and has more black on the face. J. Gould, P. Z. S. 1865, pp. 198, 199; Ann. & Mag. N. H. 3rd ser. xvi. pp. 60, 61; *Idem*, Handb. B. Austral. i. pp. 149, 150.

"*Xenopirostris damii*, Pollen," is described as a new species from the north-west of Madagascar, rather smaller than *X. lafresnayi*, with a white chin and the grey on the wings differently disposed. It is possible also that there may be a third species in Madagascar, provisionally named by M. Pollen *X. albifrons*. H. Schlegel, N. T. D. 1865, pp. 82-84.

CAMPEPHAGIDÆ.

HARTLAUB, G. Monographische Studien über die Gruppe der Campephaginen. Journ. für Orn. 1864*, pp. 435-446; 1865, pp. 153-173.

The birds of this group are distributed in Africa from the Cape to 18° N. lat., as well as in Madagascar and the Mascarene Islands, in Asia over the whole of India, the Indo-Chinese territories, South and Middle China (except Formosa), the Philippines, Sunda Islands, and Moluccas, New Guinea, together with the whole of Australia, Tasmania, Norfolk Island, New Caledonia, New Hebrides, Louisiades, Solomon Islands, Feejees, the Navigators' and Society Islands. The centre of their distribution may be taken to be the Moluccas and New Guinea, as the greatest diversity of species is there to be found in the smallest space. The author divides the group into nine genera, five of which, *Graucalus*, *Campephaga*, *Oxynotus*, *Volvocivora*, and *Lalage*, have the very characteristic stiff shafts to the rump-feathers, a structure which seems to attain its maximum in *Oxynotus*; in *Artamides* and *Lanicterus* this peculiarity is less remarkable, and it appears to be altogether wanting in *Pteropodocys* and *Symmorphus*. The author rejects the genus *Ceblepyris*, making it a section of the typical genus *Campephaga*. The paper contains a descriptive and synonymatic list of the sixty-seven species of the group, three of which are new, drawn up in Dr. Hartlaub's usual admirable style.

Graucalus concretus is a new species from Borneo, having the lores the

* Not published till after March 1865.

same grey colour as the back, and the bill exceedingly stout and rounded. It stands between *G. lagunensis* and *G. swainsoni*. The two specimens known are in the Leyden Museum and that of Hr. Heine. G. Hartlaub, J. f. O. 1864 *, p. 445.

Campephaga amboinensis seems to be a new species from Amboyna, much allied to *C. morio* from Celebes, but paler in colour and rather larger. G. Hartlaub, J. f. O. 1865, p. 156.

Campephaga sloeti is a new species from the western part of New Guinea. It belongs to the subgenus [genus] *Lalage*, but in appearance resembles a *Pericrocotus*, and approaches *C. aurea* from Halmaheira. H. Schlegel, N. T. D. 1865, pp. 253, 254.

Volcicivora schierbrandi is described and figured as a new species from Borneo, very like *V. fimbriata*, but smaller and having the black of the throat and breast circumscribed and abruptly separated from the colour of the lower parts. A. v. Pelzeln, Reise Novara, Vögel, pp. 80, 81, tab. ii. fig. 1; G. Hartlaub, J. f. O. 1865, p. 161.

Volcicivora melanura is a new species from India (?), very like *V. melaschistus* (*Ceblepyris lugubris*, Sundev.), but with a tail entirely black and a slenderer bill. G. Hartlaub, J. f. O. 1865, p. 162.

POLLEN, FRANÇOIS. Note sur l'*Oxynotus ferrugineus*. Bull. de la Soc. d'Acclimat. et d'Hist. Nat. de l'île de la Réunion, tom. iii. Saint Denis: janvier 1865, pp. 4, pl. i.

The observations of the author as made by himself in Réunion (Bourbon) are valuable, but they are mingled with several statements with regard to other matters of doubtful accuracy, some of which, however, appear to be of much importance. It is probable that the author's descriptions and figures refer to a species distinct from that which has been usually identified with the *Lanius ferrugineus* of Gmelin. (Cf. Ibis, 1865, p. 530, and 1866, p. 224.)

Oxynotus ferrugineus (Quoy et Gaimard) is proposed to be called *O. typicus*. G. Hartlaub, J. f. O. 1865, p. 160.

MUSCICAPIDÆ.

Hylophorba is a new genus, the characters of which are given at some length. It is allied to *Hyloterpe*, and is instituted for the reception of

Hylophorba radicilla, a new species of bird from Madagascar. P. L. Selater, P. Z. S. 1865, pp. 326, 327, pl. xiii.

Butalis cærulescens is a new species from Natal. G. Hartlaub, Ibis, 1865, pp. 267, 268.

Muscicapa (Erythrosterina) parva has again occurred in England. E. H. Rodd, Ann. & Mag. N. H. 3rd ser. xvi. p. 447; ♀ figured, C. J. Sundevall, Sv. Fogl. pl. lxxviii.

Muscicapa helianthea is described as a new species from Celebes. A. R. Wallace, P. Z. S. 1865, p. 476.

* Not published till after March 1865.

Tchitrea mutata, *T. pretiosa*, and *T. holosericea* are probably synonymous. H. Schlegel, N. T. D. 1865, pp. 84-86. A. Newton, P. Z. S. 1865, p. 835.

Tchitrea spekii is described as a new species from Eastern Africa. G. Hartlaub, P. Z. S. 1865, p. 428.

Cyornis rufigula and *C. rufifrons* are new species, the former from Celebes, the latter from Borneo. A. R. Wallace, P. Z. S. 1865, p. 476.

Myiagra plumbea and *Monarcha carinata*, their nests and eggs described. E. P. Ramsay, Ibis, 1865, pp. 301-303.

Rhipidura longicauda is a new species from Sumatra, very near *R. javanica*, but has a longer tail, narrower white tips to only three outer rectrices, and a black chin. A. R. Wallace, P. Z. S. 1865, p. 476.

Rhipidura torrida is a new species from the summit of the volcano of Ternate, very like *R. semicollaris*, but has a shorter bill and a different arrangement of colouring. *Idem*, op. cit. p. 477, pl. xxviii.

Rhipidura cinerea is a new species from Ceram, nearest to *R. assimilis*, but wanting the terminal white spots on the rectrices. *Idem*, loc. cit.

Rhipidura flabellifera, its nest and eggs described. E. P. Ramsay, Ibis, 1865, p. 155.

"*Muscipeta melaleuca*, Quoy et Gaimard," is distinct from "*Muscicapa tricolor*, Vieill.," to which it had formerly (Arch. du Mus. vii. p. 357) been referred. The latter seems to be identical with *Rhipidura motacilloides*, Vig. & Horsf. Pucheran, R. Z. 1865, pp. 15-17.

MYIOTILTIDÆ.

Geothlypis melanops is a new species from Eastern Mexico, resembling *G. trichas*, but of a uniform yellow beneath, including the under surface of the wings, and with the mask broadly bordered with bluish-white. S. F. Baird, Rev. Am. B. pp. 219-222.

Geothlypis poliocephala is described as a new species from the west coast of Mexico and Guatemala, with a very stout bill and much curved culmen. The black of the face confined to the loreal region or extending only in a narrow ring round the eye. S. F. Baird, op. cit. pp. 220, 225, 226.

A supposed new species of *Geothlypis* from Guatemala is indicated but not named. It may, however, be the female of *G. speciosa*. S. F. Baird, op. cit. pp. 227, 228.

Motacilla canadensis no. 2, of Linnæus, is now proposed to be termed *Dendroica cærulescens*, the former name being a synonym of *D. coronata*, of earlier date than as used for the present species, to which also *Sylvicola pan-nosa* of Goese is referred (cf. P. Z. S. 1861, p. 71). S. F. Baird, Rev. Am. B. pp. 186, 187.

Dendroica gundlachi is the name proposed for the *Sylvia æstiva*, Lambeye, from Cuba, and the peculiarities wherein it differs from its allies are described in much detail. S. F. Baird, op. cit. pp. 197-199.

Dendroica petechia (L.), from Jamaica, is very fully differentiated from *D. æstiva*. The former is larger, with disproportionately broader quills. S. F. Baird, op. cit. pp. 194, 199-201.

A new species of *Dendroica* from some of the West-Indian Islands (St. Croix, St. Thomas, and Barbadoes) is indicated but not named. It is sup-

posed to be identical with the *Motacilla ruficapilla* of Gmelin, founded on a specimen from Martinique, and has been confounded with *D. aestiva* by A. & E. Newton (Ibis, 1859, p. 143) and with *D. ptechia* by Cassin (Proc. Philad. Acad. 1860, pp. 192, 376). The examples at the author's disposal are not sufficiently perfect to exhibit their true character. S. F. Baird, *op. cit.* pp. 201-203.

Dendroeca rufigula is the name proposed for the *Sylvia ruficapilla* of Vieillot, which is not the *Motacilla ruficapilla* of Gmelin and Latham. It is much smaller than *D. vieillotii*, and has the orange-brown of the head and throat extending down the neck to the jugulum. The specimen is in the Philadelphia Academy, but its original locality is unknown. S. F. Baird, *op. cit.* pp. 204, 205.

Dendroeca gracia [sic] is a new species discovered in Arizona by Dr. Coues. Very like *D. nigrescens*, but with a yellow chin and throat. It also resembles *D. dominica*, but has a yellow subocular crescent and is without the white patch behind it. It is still more closely related to *D. adelaida*, but has the yellow of the underparts extending to the crissum, and the sides scarcely streaked. S. F. Baird, *op. cit.* pp. 210-212.

Dendroeca adelaida is a new species obtained from Porto Rico by Mr. Swift, having some peculiarities of form which almost entitle it to rank in a separate genus. The nape has a number of long bristles with fibrillæ at the end. S. F. Baird, *op. cit.* pp. 212, 213.

Dendroeca atricapilla is described as a new species from Chili, greatly resembling *D. varia* from North America, but it has a white stripe along the middle of the head and a second over the eyes; the feathers of the back are also bordered with white. L. Landbeck, Ann. Univers. Chile, Apr. 1864; Arch. f. Naturgesch. 1864, i. pp. 56-58.

Dendroeca niveiventris is referred to *D. occidentalis*, and diagnoses of this with the allied *D. virens*, *D. chrysoparia*, and *D. townsendi* given. P. L. Sclater, Ibis, 1865, pp. 87-89. Error corrected *op. cit.* p. 237.

SCLATER, P. L. On a New Species of the Genus *Basileuterus* of Cabanis, with a Synopsis of the known Species of the Genus. Proc. Zool. Soc. 1865, pp. 282-286, pls. ix., x.

The author considers the proper position of the genus to be between *Myio-diotes* and *Setophaga*, and gives a diagnostic and synonymatic list of fifteen species belonging to it, exclusive of *Myiothlypis nigriristata* and *Euthlypis lacrymosa*, which he thinks can scarcely be separated generically.

Basileuterus mesoleucus, from Demerara, is a new species, allied to *B. stragulatulus* from Eastern Brazil, but with a whole-coloured head, red eyebrows, a white belly, and shorter wings and tail. It is figured (fig. 1) together with *B. cinereicollis* (fig. 2), *op. cit.* pl. ix., and *B. semicervinus* (fig. 1) and *B. uropygialis* (fig. 2), *op. cit.* pl. x.

Myioborus, *Idiotes*, and *Ergaticus* are proposed subgenera of *Setophaga*, *Basileuterus*, and *Cardellina* respectively. The first has for its type *S. verticalis*, the second *B. rufifrons*, and the third *C. rubra*. S. F. Baird, Rev. Am. B. pp. 237, 257, 247, and 264.

The *Setophaga ruficoronata* of Sclater (Cat. Am. B. p. 37) is supposed to be

distinct from the species so described by Kaup; but the former receives no name. S. F. Baird, *op. cit.* p. 258.

Setophaga aurantiaca is a new species from Costa Rica, very similar to *S. verticalis* from Bogota, but with the lower parts yellowish-orange, the forehead and sides of vertex black, and outer rectrix with less than the terminal half white. S. F. Baird, *op. cit.* pp. 254, 261.

Setophaga torquata is another new species from Costa Rica, to be distinguished from all its congeners by its clear yellow face without any dusky marks, and the yellow underparts crossed by a dusky pectoral band. S. F. Baird, *op. cit.* pp. 254, 261, 262.

Granatellus francescæ is a new species from the Tres Marias, off the west coast of Mexico, similar to *G. venustus*, but wanting the black pectoral band and having a longer, broader, and more rounded tail. S. F. Baird, *Rev. Am. B.* pp. 331-333.

TURDIDÆ.

Cinclus aquaticus, its anatomy and habits treated of. The shortness of the wing and great development of its muscles probably account for its diving-powers and progress under water. There is no evidence of the bird eating fish-spawn. E. Crisp, *P. Z. S.* 1865, pp. 49-52; *Ann. & Mag. N. H.* 3rd ser. xvi. pp. 49-52.

Turdus atrogularis, *T. naumanni*, and *T. pallens* have all occurred in Italy. The last was described by Gené as *T. werneri* and has been regarded by Blasius as identical with *T. pallidus*. T. Salvadori, *Atti Soc. Ital. Sc. Nat.* 4 Sept. 1864.

Turdus goudoti is a new species from Madagascar. Olive-brown above, rufous below, the head black, forehead grey, and a white collar. In form it seems to approach some of the American species. J. Verreaux, *Nouv. Arch. du Muséum*, Bull. i. pp. 77, 78, pl. v. fig. 2.

Turdus varius is figured. C. J. Sundevall, *Sv. Fogl.* pl. lxvii.

Mimocichla, a subgenus of Mr. Sclater's, is proposed to be raised to generic rank, with *Turdus rubripes*, Temm., as its type; and

Mimokitta (lege *Mimocitta*) is a new genus proposed for the reception of *Turdus plumbeus*, L., a detailed description of which is appended, while prefixed are some general remarks on the genus *Galeoscoptes*, at whose expense these changes are made. H. Bryant, *Proc. Boston Soc. N. H.* ix. pp. 369-372.

Mimus polyglottus (?) breeding in confinement at Bordeaux. C. Chapella, *Bull. Soc. Impér. d'Acclimat.* 1865, pp. 466-473.

Otagon tanagra is a new species with the bill longer and stouter than in *O. turdus* (*Turnagra crassirostris*) from New Zealand. Its habitat is not stated. H. Schlegel, *N. T. D.* 1865, p. 190.

Crateropus gymnogenys is a new species from Benguela. G. Hartlaub, *P. Z. S.* 1865, p. 86; J. J. Monteiro, *op. cit.* p. 93.

Crateropus salvadorii is described as a new species from the neighbourhood of Shiraz in Persia. F. de Filippi, *Viagg. Pers.* pp. 346, 347.

Crateropus chalybeius from Palestine, its habits described. H. B. Tristram, *Ibis*, 1865, pp. 79-81.

Hypsipetes micobarieusis is figured. A. v. Pelzeln, Reise Novara, Vögel, tab. iii. fig. 2.

Copsychus sechellarum is an apparently undescribed species from the Seychelles, perhaps allied to *C. pica* from Madagascar, but glossy black all over, except the upper wing-coverts, which are white. A. Newton, Ibis, 1865, pp. 331-333, pl. viii.

Otocompsa fuscicaudata is described as a new species from Southern India, where it is very common. It differs from *O. emeria* of Bengal and *O. jocosus* of China in the uniform colour of the tail. J. Gould, P. Z. S. 1865, p. 664.

Lrus xanthopygius from Palestine, its habits described. H. B. Tristram, Ibis, 1865, pp. 81, 82.

SYLVIIDÆ.

FATIO, V. Distribution verticale des Sylviadées en Suisse. Bull. Soc. Orn. Suisse, 1865, pp. 39-67.

A notice of this paper is contained under the heading "Palæarctic Region."

Irania finoti. The generic and specific characters of this entirely new form of Saxicoline bird, first described in 1863 or 1864, are again repeated. F. de Filippi, Viagg. Pers. p. 347.

Bradyornis spekkii, Hartl. (P. Z. S. 1863, p. 105), is identical with *Cichla-dusa arquata*, Peters (Monatsb. Berlin Akad. Wiss. 16 March, 1863), which name has the priority. G. Hartlaub, Ibis, 1865, pp. 546, 547.

Saxicola spectabilis is a new species from South Africa. G. Hartlaub, P. Z. S. 1865, pp. 428, 429, pl. xxiii. Particulars of its habits, E. L. Layard, op. cit. pp. 619, 620.

Saxicola castor and *S. pollux* are two new species from South Africa. The last is smaller than the first, with longer tail, wings, and legs, white under tail-coverts, and the rectrices differently coloured. G. Hartlaub, op. cit. pp. 746, 747.

Saxicola capistrata is described and figured as new. It is *S. leucomela*, Jerdon (nec Pallas). J. Gould, B. As. part xvii.

Saxicola montana, from Afghanistan, is described and figured as new. Idem, loc. cit.

Saxicola leucomela, Pall., and *S. deserti* are also figured. Idem, loc. cit.

Dromolæa chrysopygia, the characters of this species, described as new in 1863 or 1864, are repeated. F. de Filippi, Viagg. Pers. pp. 347, 348.

Dromolæa picata and *D. opistholeuca* are figured. J. Gould, B. As. part xvii.

Melanodryas is the name proposed for a new genus consisting of "the Pied Robins, of which at least two species inhabit Australia." J. Gould, Handb. B. Austral. i. p. 283.

"*Melanodryas picta*" is described as a new species from North-western Australia, the representative of *Petræa cucullata* (Lath.) (*P. bicolor*, Gould, olim), which it is very like in colour and general form, but than which it is much smaller. A specimen from Port Essington probably indicates the existence of a third species of the group. J. Gould, op. cit. p. 285.

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Amaurodryas is the name proposed for a new genus, to receive *Petræca fusca* (now identified with *Muscicapa vittata*, Quoy & Gaim.), as that species differs from the true *Petræca* "not only in colour, but in the stouter and more robust or thicker form of the bill." The eggs are also very different from those of that group, and the sexes are alike in colouring. J. Gould, *op. cit.* part i. p. 286.

Pœcilotryas is the name proposed for a new genus, to receive *Petræca cerviniventris* and *P. superciliosa*, because on reference to the figures of those birds "it will be at once seen that these two species cannot be associated with either of the preceding genera, and must be separated into a new one." No characters are given. J. Gould, B. Austral. i. p. 287.

Saxicola (Pratincola) rubicola is figured. C. J. Sundevall, Sv. Fogl. pl. lxvi.

Pratincola rubetra with young is figured. E. Bettoni, Ucc. Lombard. fasc. ii.

Ruticilla moussieri. M. Galliard's original description of this species (Mém. Soc. Lyon, 1852) is noticed, without any mention of the additional information respecting it furnished by Messrs. Tristram and Salvin (*Ibis*, 1859, 1860). Rev. Zool. pp. 285-287.

Luscinia (Ruticilla) tithys is figured. C. J. Sundevall, Sv. Fogl. pl. lxvi.

Cyanecula suecica, its supposed residence in the Isle of Wight. H. Hadfield, Zool. pp. 9005, 9724, 9846; figured J. Gould, B. G. B. part viii.

Accentor alpinus breeds on the Riesengebirge. J. A. Jahn, Zool. Garten, 1865, pp. 473, 474.

Gerygone aucklandica, from New Zealand, is described as a new species, very like *G. modesta* from Norfolk Island, but is smaller and has different markings on the tail. Its habits resemble those of *Regulus cristatus*. A. v. Pelzeln, Reise Novara, Vögel, p. 65, 66.

Gerygone neglecta and *G. palpebrosa* are two new species,—the first from Waigiou and Mysol, most like *G. chloronota*; the second from the Aru Islands. A. R. Wallace, P. Z. S. 1865, p. 475.

Drymæca (?) rodericana is a new species from Rodriguez, cinereous-olive above, yellowish below, with a yellowish-white circle round the eye. A. Newton, P. Z. S. 1865, pp. 47, 48, pl. i. fig. 3; E. Newton, *Ibis*, 1865, pp. 149, 150.

Drymæca madagascariensis, Hartl., having twelve rectrices, is referred to the genus *Cisticola*. A. Newton, P. Z. S. 1865, p. 835.

Drymæca gracilis, its habits in Palestine. H. B. Tristram, *Ibis*, 1865, pp. 82, 83.

Cisticola schœnicola: observations on this bird, which in fact amount to a monograph of it, are given. G. Lunel, Bull. Soc. Orn. Suisse, 1865, pp. 9-30, pl. i.

Calamoherpe turdoides is figured. C. J. Sundevall, Sv. Fogl. pl. lxvii., and, with young, E. Bettoni, Ucc. Lomb. fasc. i.

Sylvia locustella and *S. cariceti* are figured. C. J. Sundevall, Sv. Fogl. pl. lxviii.

Sylvia doriæ is described from Persia as a new species, much resembling *S. conspicillata*, but with a shorter bill and stouter toes. F. de Filippi, Viagg. Pers. p. 348.

Sylvia cinerea and *S. curruca* are figured. J. Gould, B. G. B. part vii.

Curruca cinerea, var. *persica*, is mentioned but not characterized. F. de Filippi, Viagg. Pers. p. 348.

Curruca atricapilla is figured, J. Gould, B. G. B. part vii., and, with young, E. Bettoni, Ucc. Lomb. fasc. iii.

Curruca hortensis is figured. J. Gould, B. G. B. part viii.

Hippolais (lege *Hypolais*) *elaica* (Lind.) has occurred in Italy and is figured. F. Magni-Griffi, Mem. Soc. Ital. di Sci. Nat. i. no. 2, pp. 6, c. tab.

Ficedula hypoleis is figured. J. Gould, B. G. B. part vii.

Phylloscopus superciliosus caught near Leyden. J. P. v. W. Crommelin, N. T. D. 1865, p. 244; figured, C. J. Sundevall, Sv. Fogl. pl. lxxviii.

Phyllopneuste tristis is figured. J. Gould, B. As. part xvii.

Aborrnis armandi is described as a new species much resembling *A. viridana*, Blyth, and *A. lugubris* (Blyth), Journ. As. Soc. 1843, xii. p. 968. H. Milne-Edwards, Nouv. Arch. Mus. Bull. i. pp. 22, 23, pl. ii. fig. 3.

MOTACILLIDÆ.

Enicurus (lege *Henicurus*) *guttatus* and *E. (H.) sinensis* are two new species, the first supposed to be from Sikim, and there to be the eastern representative of *H. maculatus*; the second is from China, very similar to *H. leschenaulti* from Java, but with only half the crown white. J. Gould, P. Z. S. 1865, pp. 664, 665.

Motacilla alba (?), from Persia, is distinguished by having the white on the wing-coverts more extended, as in *M. dukhunensis*. F. de Filippi, Viagg. Pers. p. 348. [Qu. = *M. lugubris*, Temm. ?]

Motacilla sulphurea is figured. C. J. Sundevall, Sv. Fogl. pl. lxxi.

The synonymy and distribution of the five species of Indian *Motacilla*, *M. maderaspatana*, *M. luzoniensis*, *M. hodgsoni*, *M. personata*, and *M. dukhunensis*, and the three of Indian *Budytes*, *B. calcarata*, *B. melanocephala*, and *B. viridis*, are particularized. E. Blyth, Ibis, 1865, pp. 48-50.

Budytes citreoloides (*B. citreola*, Gould olim, et Jerdon, nec Pallas) is figured. Gould, B. As. part xvii.

Pipastes agilis is figured. J. Gould, B. As. part xvii.

Anthus (Notiocorys) parvus is described as a new species from the Isthmus of Panama, founded on specimens formerly referred (Ann. Lyc. N. Y. vii. p. 322) to *A. rufus*, from which they differ by their smaller size and the colour of the two outer rectrices. G. N. Lawrence, Proc. Acad. Philad. 1865, pp. 106, 107.

Anthus ricardi, four examples observed in one day, 24 Oct. (1863 P), near Caen. O. Fauvel, Bull. Soc. Linn. Normand. ix. p. 127. Its occurrence in England: G. F. Mathews, Zool. p. 9436; G. D. Rowley, Zool. p. 9466. Figured, C. J. Sundevall, Sv. Fogl. pl. lxxi.

Anthus rufescens has again occurred in England. G. D. Rowley, Ibis, 1865, p. 113.

Anthus spinoletta, supposed occurrence in England. P. L. Sclater, P. Z. S. 1865, p. 60. J. Gould, Ibis, 1865, pp. 114, 115.

Anthus rupestris, occurrence in England. Ibis, 1865, p. 237.

TROGLODYTIDÆ.

Thryothorus brunneus is described as a new species from Greytown, Nicaragua. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 179, 180.

CERTHIIDÆ.

Tichodroma muraria, its habits in confinement and at large. A. Girtanner, Bull. Soc. Orn. Suisse, i. pp. 126-131. Translated from Verhandl. der St. Gallischen naturw. Gesellsch. 1863-64.

SITTIDÆ.

SCLATER, P. L. Notes on Krüper's Nuthatch, and on the other known Species of the Genus *Sitta*. Ibis, 1865, pp. 306-311, pl. vii.

The author characterizes and figures the *Sitta krueperi* of Von Pelzeln from Asia Minor, which is a very distinct species, its black cap, chestnut pectoral band, and small size separating it at once from all other Old-World birds of the genus. He afterwards remarks on the other species of the group, of which he enumerates twelve, adding short details of their distribution and synonymy. *S. formosa* is quite isolated. He follows Prof. Blasius in not allowing the specific distinction of *S. casia*, *S. advena*, and *S. europæa*, to which he also refers the specimens collected in Palestine by Mr. Tristram and called by him (P. Z. S. 1864, p. 433) "*S. krueperi*." The author also refuses to admit the *Sitta aculeata* as distinct from *S. carolinensis*. To this last the Asiatic *S. leucopsis* is most nearly allied, having a black head and nape; the latter character is wanting in *S. krueperi*.

Sitta villosa is a new species from North China, having a great resemblance to *S. canadensis*, but distinguished by its long and silky plumage. It belongs to the black-capped group (*vide supra*). J. Verreaux, Nouv. Arch. du Muséum, Bull. i. p. 78, pl. v. fig. 1.

PARIDÆ.

Parus afer from Benguela is much smaller than southern specimens. G. Hartlaub. P. Z. S. 1865, p. 88.

Parus hudsonicus, var. *littoralis*, is described from Nova Scotia. It differs from the type in size quite as much as do *P. carolinensis* and *P. atricapillus*, and in colour as the latter and *P. septentrionalis*. H. Bryant, Proc. Boston Soc. N. H. ix. pp. 368, 369.

Parus alpestris, Bailly, does not differ from *P. borealis*, De Selys, but is specifically distinct from *P. palustris*. V. Fatio, Bull. Soc. Orn. Suisse, 1865, pp. 79-93, tab. ii. figg. 1-3.

Parus cyaneus is figured. C. J. Sundevall, Sv. Fogl. pl. lxxviii.

Lophophanes atricristatus occurs near Vera Cruz in Mexico. P. L. Sclater, P. Z. S. 1865, p. 397.

Mecistura ninihoi is described and figured as a new species from Shanghai, resembling *M. glaucogularis*, but differing in its reddish throat, white belly, and breast wanting the silver-grey. A. v. Pelzeln, Reise Novara, Vögel, pp. 66, 67, tab. iii. fig. 1.

Orites (sc. *Acredula* sive *Mecistura*) *tephronotus* is a new species from Asia Minor, rather larger than *A. caudata*, and having the back pure grey without any black, and indistinct dark stripes on the sides of the neck and under surface. A. Günther, Ibis, 1865, pp. 95-97, tab. iv.

Paroides pendulinus, notes on its nidification near Pisa. H. Giglioli, Ibis, 1865, pp. 53-55.

Polioptila plumbeiceps is a new species from Venezuela, in the colouring of the back and wings coming nearest to *P. leucogaster*, but it is more plumbeous beneath and has much narrower rectrices. Its dark lead-coloured crown will probably render it the foundation of a fourth section of the genus, in addition to those defined by Prof. Baird (Rev. Am. B. i. pp. 67, 68); G. N. Lawrence, Proc. Acad. Philad. 1865, p. 37.

MALURIDÆ.

Makurus leuconotus is a new species from the interior of Australia, like *M. lamberti* in size, but *M. leucopterus* in colour, and differing from both in the whiteness of its back. J. Gould, P. Z. S. 1865, p. 198; Ann. Mag. N. H. 3rd ser. xvi. p. 60; *Idem*, Handb. B. Austral. i. p. 332.

TANAGRIDÆ.

Euphonia annea [sic] is a new species from Costa Rica, resembling *E. ruficeps*, but with the underparts of the body clear yellow and the under tail-coverts white. It belongs to the group *Acroleptes*. J. Cassin, Proc. Acad. Philad. 1865, pp. 171, 172.

Iridornis reinhardti is a new species described and figured from Peru, allied to *I. dubusia*, but distinguishable by its black cap and broad golden nuchal band. P. L. Sclater, Ibis, 1865, pp. 495, 496, pl. xi.

Buthraupis edwardsi is described as a new species from New Granada, olive-green, with cheeks, eyebrows, and nuchal band blue, and a yellow breast-spot. D. G. Elliot, Nouv. Arch. du Muséum, Bull. tom. i. p. 77, pl. iv. fig. 2.

Tachyphonus rubrifrons is a new species from the Isthmus of Panama, formerly confounded by the author (Ann. Lyc. N. Y. vii. p. 331) with *T. xanthopygius*, Sclater, but differing from that bird chiefly by having black shoulders and wanting the red postocular stripe. G. N. Lawrence, Proc. Acad. Philad. 1865, p. 106.

Arremon rufidorsalis is a new species from Costa Rica, allied to *A. aurantirostris*, *A. spectabilis*, and *A. erythrorhynchus*, but with the back chestnut. J. Cassin, Proc. Acad. Philad. 1865, p. 170.

Buarremon crassirostris is a new species from Costa Rica, and forms a new division of the genus, easily characterized by its strong and more *Pyranga*-like bill. It is most nearly related to the species of the group *Pipilopsis*, but does not intimately resemble any of them known to the author. J. Cassin, Proc. Acad. Philad. 1865, p. 170.

Duarremon ocai is described as a new species from Mexico, resembling *B. brunneinuchus*, but much larger, with a stouter bill and various differences of coloration. G. N. Lawrence, Ann. Lyc. N. York, 1865, pp. 128, 127.

PLOCEIDÆ.

Hyphantornis royeri is a new species described from a specimen in the Leyden Museum, which bears this name in M. J. Verreaux's writing. It is typical in form, but cannot be mistaken for any other. G. Hartlaub, J. f. O. 1865, p. 97.

Ploceus —. A supposed new species allied to *P. rubiginosus*, Rüpp. is described but not named. T. v. Heuglin, J. f. O. 1865, p. 98.

Ploceus sylvionotus, Vigors, ♀ described and figured (the male only having been hitherto known), with nest and egg. G. G. Bianconi, Mem. Accad. Sci. Bologna, 2 ser. iv. pp. 510–521, tab. ii. fig. 1, tab. iii. figg. 1, 2.

Foudia flavicans is a new species from Rodriguez, most nearly allied to *F. erythrocephala*, but larger and with stouter feet, and having the head and breast yellow. A. Newton, P. Z. S. 1865, p. 47, pl. i. figs. 1, 2; E. Newton, Ibis, 1865, p. 148.

Munia tristissima is a new species from New Guinea, and the first Finch that has been recorded thence. A. R. Wallace, P. Z. S. 1865, pp. 479, 480.

Munia formosana is a new species from Formosa, like *M. rubromigra*, but with a dusky occiput and nape. R. Swinhoe, Ibis, 1865, p. 356.

Estrela minima, *E. amandava*, and *E. cinerea*, breeding in confinement. E. Rey, Zool. Garten, 1865, pp. 310–312 and 391–394.

Estrela nitidula is a new species from Natal and the Gold Coast (P). G. Hartlaub, Ibis, 1865, pp. 269, 270.

FRINGILLIDÆ.

Cardinalis virginianus (P) breeding in confinement. E. Billot, Bull. Soc. Impér. d'Acclimat. 1865, pp. 463–465.

Paroaria cucullata breeding in confinement. M. Schmidt, Zool. Garten, 1865, pp. 12–16.

Fringilla canaria (fera) is figured. C. J. Sundevall, Sv. Fogl. pl. lxx.

Chlorospiza [P] *plumbea* is described as a new species from Chile, very like *C. xanthogramma*, Gray; but this is larger, more robust, and has a far thicker Sparrow-shaped bill. R. A. Philippi and L. Landbeck, Ann. Univers. Chile, Apr. 1864; Arch. f. Naturgesch. 1864, i. pp. 47–49. (Dr. Hartlaub, Bericht, 1864, refers this species to the group *Emberizinae*.)

Sycalis aureiventris is a new species from Chile, very fully described, nearly allied to *Emberiza luteocephala* of D'Orbigny; but that bird is plain brownish-grey above, where this is olive-green, mixed with grey and streaked with black, and has the rump yellowish-green, besides other differences. R. A. Philippi and L. Landbeck, Ann. Univers. Chile, Apr. 1864; Arch. f. Naturgesch. 1864, i. pp. 49–54.

Spermophila hicksi, *S. badiiventris*, and *S. fortipes* are described as new species from Panama. No diagnosis is given of the first. The second resembles *S. corvina*, except in the bay colour of the under plumage and the light

straw-colour of the under wing-coverts and wing-spot. The third is, in general appearance, much like *S. semicollaris*, but has the white collar extending across the throat, white on the chin, and a white line down each side of the throat, and stouter feet. G. N. Lawrence, Ann. Lyc. N. Y. 1865, pp. 171, 172.

Spermophila collaris is described as a new species from Chiriqui, New Granada. *Idem*, op. cit. p. 177.

CASSIN, JOHN. An Examination of the Birds of the Genus *Chrysomitris* in the Museum of the Academy of Natural Sciences of Philadelphia. Proc. Acad. Philad. 1865, pp. 89-94.

Sixteen species are carefully differentiated, and their synonymy, characters, and distribution dwelt upon. They are divided into six groups, *Chrysomitris*, *Pyrrhomitris*, *Melanomitris*, *Sporagra*, *Astragalinus*, and *Pseudomitris*, of which the names of the third and last are new to us. *Pseudomitris* includes the species *Chrysomitris psaltria*, *C. mexicana*, and *C. columbiana*, which are probably entitled to generic distinction.

Chrysomitris bryanti is a new species from Costa Rica, allied to *C. atrata* and *C. urogypalis*, but is smaller and has the entire head and upperparts uniform lustrous black and the underparts yellow. The yellow spots on the wings are also restricted. It belongs, with the two species just mentioned, to the group termed by the author *Melanomitris*. J. Cassin, *ut supra*, pp. 91, 92.

Linota montium is figured. J. Gould, B. G. B. pt. viii.

Carpodacus erythrurus has again occurred in Holland. J. P. v. W. Crommelin, N. T. D. 1865, p. 246; is figured, C. J. Sundevall, Sv. Fogl. pl. lxx.

Carpodacus davidianus is, with hesitation, described and figured as a new species, much resembling *P. rhodochroa* (Vigors), P. Z. S. 1831, p. 23, but differing from the various figures and descriptions of that bird. H. Milne-Edwards, Nouv. Arch. Mus. Bull. i. pp. 18-20, pl. ii. figs. 1, 2.

Carpodacus frontalis is the common town-bird of New Mexico. E. Coues, Ibis, 1865, p. 159.

Erythropsiza obsoleta breeds abundantly in the gardens of Casbin, and seems to replace in Persia the *E. rhodoptera* of Europe. F. de Filippi, Viagg. Pers. p. 349.

Corythus enucleator, *Loxia pityopsittacus*, and *L. curvirostra*: some remarks on the changes of plumage in these three species are given. H. W. Wheelwright, 'Ten Years in Sweden,' pp. 341-345.

EMBERIZIDÆ.

Schœnicola arundinacea (*Emberiza schœnicolus*, L.) is figured. J. Gould, B. G. B. pt. vii.

Emberiza cernuuii. The characters of this species, described as new in 1863 or 1864, are repeated. It is allied to *E. caesia*. F. de Filippi, Viagg. Pers. pp. 112, 113.

Emberiza pusilla, Pall., has occurred near Brighton. G. D. Rowley, Ibis,

1805, p. 118 (*cf.* J. Gould, P. Z. S. 1864, p. 377); is figured, C. J. Sundevall, Sv. Fogl. pl. lxxv.

Emberiza rustica is figured. C. J. Sundevall, Sv. Fogl. pl. lxxv.

Calamospiza bicolor is the characteristic bird of the southern prairies. E. Coues, Ibis, 1865, p. 158.

ALAUDIDÆ.

Otocorys larvata. The characters of this species, described as new in 1863 or 1864, are repeated. F. de Filippi, Viagg. Pers. pp. 348, 349.

Otocorys penicillata has really occurred in Europe, namely at Astrakan. *Idem*, *op. cit.* p. 349, note.

Pyrhulauda modesta is described as a new species from the Canaries, differing from *P. frontalis*, Licht., from Nubia and the Cape Verd Islands, by its black outer rectrices. It is more allied to *P. (Coraphites) melanauchen*, Cabanis, from Abyssinia, but is of a lively rusty yellowish-red above and on the two middle rectrices, with the breast entirely of the same colour but paler. O. Finsch, J. f. O. 1864*, pp. 412, 413.

Mirafraga horsfieldi, particulars of its nidification given. E. P. Ramsay, P. Z. S. 1865, pp. 689, 690.

Obs.—“Die Lerchen Chiles.” R. A. Philippi and C. L. Landbeck, Arch. f. Naturgesch. 1865, i. pp. 58–73. The species of birds mentioned in this paper, some of which are referred by the authors to the genus *Certhilauda*, in reality belong to the family *Dendrocolaptidæ*, q. v. (*Cf.* P. L. Sclater, Ibis, 1866, p. 59.)

STURNIDÆ.

SCHLEGEL, H. Description d'un oiseau remarquable et inconnu des Naturalistes, *Charitornis albertinæ*. Nederl. Tijdschr. Dierkunde, 1865, pp. 1–3. Vogels, pl. 8.

This remarkable bird, for which the author establishes (though without strict definition) a new genus, was sent from the Soula Archipelago by the late Dr. Bernstein. The bill is much the same as in *Gracula*, the throat and sides of the head, round and beyond the eye, are bare, but the ears are covered by a tuft of feathers. The feet are pretty stout, and resemble those of *Gracula*. The wings are rather longer than the body, the first quill only half an inch longer than the great coverts. The tail is graduated and much longer than the body, being about three-fifths of the whole length of the bird, which is about 16 inches. The head, neck, mouth, and lower parts of the bird, as far as the vent, are white, the rest of a rather lustrous greenish-black. The bill and feet are yellow, and the bare skin of the head blue.

The author also takes occasion to observe that *Streptocitta albigollis* (which *Charitornis albertinæ* at first sight much resembles), though hitherto generally classed with the *Corvidæ*, in reality, like the present bird, belongs to the *Graculinæ*.

* Not published till after March 1865.

Acridotheres tristis, its habits in India. T. P. Norgate, Zool. 9585-9587.

Pastor roseus is figured. J. Gould, B. G. B. part vii.

Creadion carunculatus, its nest and eggs described. E. P. Ramsay, Ibis, 1865, p. 156.

Ptilonorhynchus holosericeus, with its bower, is figured. J. Wolf, Zool. Sketches, 2nd ser.

PARADISEIDÆ.

"*Schlegelia calva*, Bernstein," is figured, N. T. D., 1865, Vogels, pl. 7, and the account formerly given of it (*cf.* Zool. Record, i. p. 86) translated into French, *op. cit.* pp. 4-7; into German, J. f. O. 1864, pp. 401-405. Supposed to be identical with *Diphyllodes wilsoni*, Cassin (Journ. Acad. Philad. ii. pl. 15), P. L. Sclater, P. Z. S. 1865, p. 465; Ibis, 1865, pp. 343, 344. Their identity accepted, H. Schlegel, N. T. D. 1865, p. 249.

CORVIDÆ.

Corvus coronoides, its nest and eggs described. In New South Wales there are two distinct races, if not species, one with white, the other with dark irides. The eggs of these two birds differ. E. P. Ramsay, Ibis, 1865, pp. 303, 304. The birds with white irides are adult. J. Gould, Handb. B. Austral. i. p. 476.

Corvus splendens (?), its habits in India. T. P. Norgate, Zool. pp. 9649-9653.

Lycocorax morotensis and *L. obiensis* are described as new species,—the former, first indicated by Prof. Schlegel some years since (Ibis, 1863, p. 119), from the islands of Mortay and Rau, resembles *L. pyrrhopterus*, but is to be distinguished by its considerable size and the second to seventh wing-quills being white at the base of their inner webs; the latter is from the Obi Islands, and differs from both the species just named by being intermediate in size, having a dull green half-metallic gloss over the whole body, excepting the wings. H. A. Bernstein, J. f. O. 1864 *, pp. 408-410. The three species further differentiated, H. Schlegel, N. T. D. 1865, pp. 191, 192.

Nucifraga caryocatactes is figured, J. Gould, B. G. B. part viii.; its eggs exhibited, A. Newton, P. Z. S. 1865, p. 256.

Gymnorhina tibicen, its very variable eggs described. E. P. Ramsay, Ibis, 1865, pp. 300, 301.

COLUMBÆ.

COLUMBIDÆ.

WALLACE, A. R. On the Pigeons of the Malay Archipelago. Ibis, 1865, pp. 365-400, plate ix.

Under the heading "Australian Region" we have attempted to give an abstract of the general principles contained in this paper. The introduction which contains them is followed by a catalogue, concisely synonymatic, geographical, and occasionally diagnostic, but in nearly every instance with the addition of a

* Not published till after March 1865.

few field-notes as to the colours of the soft parts, which in this order are so brilliant and so evanescent. One hundred and eighteen species are thus mentioned, and many more incidentally referred to. Of the former, four may be spoken of as newly described. To this part of the paper succeeds a table of many pages, showing the geographical distribution of all the species, and a folding sheet doing the same with regard to the genera.

Ptilonopus cesarinus is a new species from the Feejees, allied to *P. clementina*, *P. apicalis*, and *P. roseicapillus*; but the red crown has no bordering of any other colour. G. Hartlaub, J. f. O. 1864 *, pp. 413, 414.

"*Ptilonopus formosus*, G. R. Gray," from Macassar and Menado, formerly indicated as distinct (P. Z. S. 1860, p. 360) is now described as resembling *P. superbus*, but with a broader dark purple pectoral band, a smaller bill, and other differences. A. R. Wallace, Ibis, 1865, pp. 379, 380.

Ptilonopus pectoralis, its confused synonymy treated. H. Schlegel, N. T. D. 1865, pp. 208, 209.

Columba palumbus, *C. aenas*, *C. livia*, and *C. turtur*, the habits of these four well-known species as observed in Münsterland. B. Altum, J. f. O. 1865, pp. 306-310.

Columba polleni is a new species from Mayotte. The size of *C. palumbus* (?) and recognizable by its lemon-yellow bill and feet, as well as by the purplish brown-grey of its plumage, excepting on the nape, where the elongated feathers are blackish passing into grey at the tips, outwardly bordered with white. H. Schlegel, N. T. D. 1865, p. 87.

Fringinus, *Alectroenas*, and *Erythræna* are considered unnecessary genera, the birds belonging to them being more properly referable to *Ptilopus* (seu *Ptilonopus*). H. Schlegel, N. T. D. 1865, p. 88.

Geotrygon albiventer is described as a new species from the Isthmus of Panama; it is quite distinct from *G. violacea*, with which it had before been confounded (Ann. Lyc. N. Y. vii. p. 477), having the crown brownish-violet, the back and wing-coverts cinnamon-brown, and the tail and wing-quills of a darker red. G. N. Lawrence, Proc. Acad. Philad. 1865, p. 108. (A writer in 'The Ibis,' 1866, pp. 120, 121, suspects the supposed new species may be the same as *G. chiriquensis*.)

Goura coronata minor is apparently a new species from Waigiou, considerably smaller than the true *G. coronata* from New Guinea. H. Schlegel, N. T. D. 1865, pp. 192, 193.

Henicophaps albifrons seems to have been described by Mr. Gray (P. Z. S. 1861, p. 432, pl. 44) from a young bird. The adult is now described. H. Schlegel, N. T. D. 1865, pp. 193, 194.

Carpophaga neglecta is a new species from Ceram, Amboyna, and Boano, rather stouter than *C. perspicillata*, and with the grey-blue of the head very light. This extends to the mantle, and only has a slight blackish shade on the upper part of the neck. H. Schlegel, N. T. D. 1865 †, pp. 195, 196.

* Not published till after March 1865.

† Bears date 1866 on wrapper.

Carpophaga temminckii is a new species from Bouru, Batchian, Gilolo, and Waigiou, like *C. perspicillata*, but the back and wings bluer, the head and neck slate-colour. A. R. Wallace, Ibis, 1865, pp. 384, 385.

These two descriptions may have reference to the same species; in that case Mr. Wallace's name has the priority of publication.

Carpophaga concinna (*C. chalybura*, G. R. Gray, P. Z. S. 1858, p. 186, nec Bp. Consp. Av. ii. p. 32), from Matabello, Sanguir, Aru, Banda, and Ké Island, is described as a new species, very closely allied to the true *C. chalybura*. A. R. Wallace, Ibis, 1865, pp. 383, 384.

"*Carpophaga sundevalli*, Bp.," is proposed to be called *C. tumida* by A. R. Wallace, Ibis, 1865, pp. 382, 383; and *C. roseinucha* by H. Schlegel, N. T. D. 1865*, pp. 197-199. Cf. A. v. Pelzeln, Reise Novara, Vögel, p. 106.

Carpophaga sylvatica, Tickell, var. Blyth, J. A. S. B. xv. p. 371, is referred to *C. ænea* var. *nicobarica*. A. v. Pelzeln, Reise Novara, Vögel, p. 105.

Carpophaga frauenfeldi is described as a new species from Stewart Island, very like *C. ænea*, but larger, with the ashy grey of the head wanting any mixture of red, and other differences. It also much resembles *C. van-wicki*, Cassin (Proc. Acad. Philad. 1862, p. 320), from New Ireland; but that has a white orbit, and the neck and breast shot with purple. A. v. Pelzeln, Reise Novara, Vögel, pp. 106, 107.

SCHLEGEL, H. Notice sur le sous-genre *Chalcophaps*. Nederl. Tijdschr. Dierk. 1865, pp. 265-268.

The seven species of *Chalcophaps* generally adopted by naturalists may be referred, the author believes, to two only, *C. indica* (including *C. augustæ*, *C. javanica*, *C. moluccensis*, *C. chrysoschlora*, and *C. longirostris*) and *C. stephani*.

Chalcophaps longirostris is a new species from Port Essington, differing from *C. chrysoschlora* in the much greater length of the mandibles, the more brilliant colouring of the plumage, and in the more distinct bands across the rump. J. Gould, Handb. B. Austral. ii. pp. 119, 120.

Chalcophaps formosana is a new species from Formosa, like *C. indica*, but with black under tail-coverts. R. Swinhoe, Ibis, 1865, pp. 357, 358, 340.

Lophophaps ferruginea is a new species from Western Australia, differing from *L. plumifera* in the nearly uniform rust-red colouring of the body and in the absence of the broad white pectoral band. J. Gould, Handb. B. Austral. ii. pp. 137, 138.

Chalcopelia brehmeri is a new species from the Gaboon, nearly allied to *C. puella*, but smaller and differing in the reddish colour of the forehead and rectrices. G. Hartlaub, Ibis, 1865, pp. 236, 237; *Idem*, J. f. O. 1865, p. 97.

Phlogoenas bartletti, Sclater (P. Z. S. 1863, p. 377) is identical with *Pampusanina criniger*, Pucheran (Voy. au Pôle Sud, Zool. iii. p. 118). Its breeding in confinement noticed and its sternum figured. P. L. Sclater, P. Z. S. 1865, pp. 238-240.

Phlogoenas tristigmata is figured. A. R. Wallace, Ibis, 1865, p. 393, pl. xi.

* Bears date 1866 on wrapper.

DIDUNCULIDÆ.

Didunculus strigirostris: notes on this species, with a figure from a photograph of the living bird. The former contain nothing that has not been printed elsewhere. W. Denison, J. As. Soc. Beng. xxxiii. pp. 373, 374, tab. Its egg mentioned, A. Newton, P. Z. S. 1865, p. 256.

DIDIDÆ.

NEWTON, ALFRED. On some recently discovered Bones of the largest known species of Dodo (*Didus nazarenus*, Bartlett). Proc. Zool. Soc. 1865, pp. 199–201, pl. viii.; Ann. & Mag. N. H. 3rd ser. xvi. pp. 61–63.

The specimens were a tarso-metatarsus and a humerus, found by the author's brother and Capt. Barclay in Rodriguez (Ibis, 1865, p. 152). They are referred to *Didus nazarenus*, Bartlett (P. Z. S. 1851, p. 284), *nec* Gmelin, and are figured.

——. On a remarkable Discovery of Didine Bones in Rodriguez. Proc. Zool. Soc. 1865, pp. 715–718.

The announcement of the discovery was first made to the British Association at Birmingham, 11 Sept. (Ibis, 1865, p. 551). The specimens, eighty-one in number; were sent to the author's brother by Mr. George Jenner, of Rodriguez. They are remains of no less than *sixteen* or *seventeen* individuals, all apparently of one species but of two sizes, the very marked difference in this respect being probably owing to sex. Among them are examples of the upper end of the tibia, portions of the sacrum and coracoid, ulna, radius, and digital phalanx, which have not before been discovered. The author now thinks that all these (together with the bones previously found in the same island) belong to the *Didus* or *Pezophaps solitarius* of Strickland, and that the *D. nazarenus*, Bartlett (P. Z. S. 1851, p. 284), cannot be accounted a good species. From the extraordinary disproportion in the size of the specimens, he suggests that the "*Solitaire*" may have been polygamous in its habits. All the bones appear to have been those of birds eaten by men or predatory animals.

Pezophaps solitarius, a metatarsus exhibited. G. Lunel, Bull. Soc. Orn. Suisse, 1865, p. 150.

Didus ineptus. Interesting discovery of its remains in Mauritius by Mr. George Clark. P. Z. S. 1865, p. 732. (Further details are given, Ibis, 1866, pp. 128 and 141–146. Nearly all the bones of the skeleton have been recovered and were described by Prof. Owen before the Zoological Society, 9 Jan. 1866, and some by M. A. Milne-Edwards before the Académie des Sciences, 23 April, 1866.)

GALLINÆ.

CRACIDÆ.

AQUARONE, PAUL. Note sur l'éducation des Hocco. Bull. Soc. Impér. d'Acclimat. 1865, pp. 449-462. (Abstract Zool. Garten, 1865, pp. 428-430.)

The species treated of appears to be *Craz globicera*. The success attained does not seem to have been very striking.

PHASIANIDÆ.

POMME, —. Sur les Races Gallines. Bull. Soc. Impér. d'Acclimat. 1865, pp. 9195.

A comparison of the respective merits of the "poule d'Asie" with those of the "poule commune de France," which the author says is much in favour of the latter.

RUPZ DE LAVISON, —. Note sur les Faisans acquis et à acquérir. Bull. Soc. Impér. d'Acclimat. 1865, pp. 280-306.

This paper consists of remarks on the three epochs at which the reclaimed or naturalized species of *Phasianidæ* have been introduced into Europe, followed by an enumeration of all the species of the family, from Mr. Sclater's paper, P. Z. S. 1863, pp. 113-127.

Crossoptilum auritum, ♂ and ♀, and *Pucrasia xanthospila*, ♂ and ♀ (with which last the *P. davidiana* of the Museum of the Jardin des Plantes is identical), are figured. H. Milne-Edwards, Nouv. Arch. Mus. Bull. i. pl. i. p. 14.

Cerionis caboti, a supposed example procured at Hong Kong. R. Swinhoe, Ibis, 1865, p. 350.

Cerionis satyra is figured. J. Wolf, Zool. Sketches, 2nd series.

Catreus wallichi is figured. J. Gould, B. As. part xvii.

Phasianus scemmeringi, accidental abnormality in one of its rectrices. J. Murie, P. Z. S. 1865, p. 746.

The crosses of which the different species of *Euplocomus* are capable are remarked on. A. Touchard, Bull. Soc. d'Acclim. 1865, pp. 307-310.

Argus grayi is a supposed new species, the type of which is in the British Museum, and making, with the somewhat doubtful *A. ocellatus*, the third of the genus known. D. G. Elliot, Ibis, 1865, pp. 423-425.

Gallophasis vieilloti is figured. J. Wolf, Zool. Sketches, 2nd series.

TETRAONIDÆ.

ELLIOT, D. G. A Monograph of the *Tetraoninæ* or Family of the Grouse. Parts iii., and iv. and v. New York: 1865. Imp. folio.

This work is now concluded. In part iii. are represented *Cupidonia cupido*, *Tetrao urogallus*, *Dendragapus richardsoni*, *Lagopus persicus*, and *L. albus* (in summer and winter). Parts iv. and v. (published together) contain figures of *Bonasa um-*

bellus, *Tetrao urogalloides*, *Falci pennis hartlaubi*, *Lagopus mutus* (in summer and winter), *L. rupestris*, and *L. hyperboreus* (sc. *hemileucurus*), together with two plates beautifully representing the eggs of seventeen species. A few of the author's determinations are mentioned below. (Cf. Ibis, 1865, p. 345, and 1866, pp. 213, 214.)

Lagopus saliceti (sc. *albus*), remarks on the habits of this bird, with reference to its distinctness from *L. scoticus*. E. R. Alston, Zool. pp. 9439, 9440.

Lagopus scoticus unsuccessfully tried to be introduced on Lüneburg-heath; called "Grau" in England! P. V. Heinzel, Verhandl. naturf. Vereines in Brünn, ii. p. 30.

Lagopus persicus is only a light-coloured variety of *L. scoticus*. D. G. Elliot, Monogr. Tetr. Introduction.

Lagopus reinhardti and *L. islandorum* are both referred to *L. rupestris*. *Idem*, op. cit. no. 21.

Lagopus hemileucurus, Gould (*L. hyperboreus*, alic.), fully described; referred to *L. alpinus* (sc. *mutus*). A. J. Malmgren, Cefvers. Vet.-Akad. Förh. 1864. Probably identical with *L. rupestris*: A. Newton, Ibis, 1865, p. 503; D. G. Elliot, Monogr. Tetr. no. 22.

Perdix cinerea, its northward advance in Scandinavia noticed. Now very plentiful at Örebro. R. v. Willemoes-Suhm, Zoolog. Garten, 1865, p. 152. Its habits in Germany, K. Müller, op. cit. pp. 472, 473.

Perdix saxatilis and *P. petrosa*, hybrids between these species. L. Olph-Galliard, Bull. Soc. Orn. Suisse, 1865, pp. 69-72.

Coturnix communis with young is represented. E. Bettoni, Stor. Nat. Ucc. Lombard. fasc. i.

Coturnix fornasinii is described and figured for a new species, "*ut aiunt*." Very like *C. communis* and *C. textilis*. *C. delagorguei* (Voy. dans Afrique australe, p. 615) approaches the supposed new bird. G. G. Bianconi, Mem. Accad. Sci. Bologna, 2 ser. iv. pp. 521, 522, tab. ii. fig. 2.

Coturnix caineana is described as a new species from Swatow and Canton. R. Swinhoe, Ibis, 1865, pp. 351, 352.

Fringillus granti is a new species from Central Africa. It resembles *F. pileatus*, but is much smaller, the red spots on the neck only form a broad collar, and the back is irregularly marked with cross bars. A list of the known species of African *Fringillini* is added. G. Hartlaub, P. Z. S. 1865, pp. 665, 666, pl. xxxix. fig. 1.

Fringillus icteropus, Heuglin, ♀, is figured from that naturalist's drawing of the only specimen ever obtained. *Idem*, op. cit. pp. 666, 667, pl. xxxix. fig. 2.

BUSSIÈRE DE NERCY, —. Note sur le Colin de Californie et son acclimatation en France. Bull. Soc. Impér. d'Acclimat. 1865, pp. 637, 638.

After three years' almost entire failure, the result of 1865 was that 122 individuals arrived at maturity.

Synoicus (lege *Synæcus*) *cervinus* is a new species from Port Essington, one of the smallest members of the genus, and distinguished by a more delicate and sandy-buff colouring. J. Gould, Handb. B. Austral. ii. pp. 195, 196.

Excalfactoria (lege *Excalfactoria*) *australis* is the name applied to Australian birds which have been hitherto referred to *Tetrao chinensis*, L. They are altogether smaller than Indian specimens, have a more delicate bill, shorter tarsi, darker upper surface, with more conspicuous black blotches. J. Gould, Handb. B. Austral. ii. p. 197.

PTEROCLIDÆ.

Syrnhaptes paradoxus, two said to have occurred on Borkum in 1861 [!], F. von Droste, J. f. O. 1864, p. 425; others in Holland, in 1861 and 1862 [!], B. Altum, *op. cit.* p. 434. One shot at Sokolnitz, May 15 [1863], out of a flock of four (other remarks not free from error), P. V. Heinzel, Verhandl. naturf. Vereines in Brünn, ii. pp. 32, 33. One killed 7 September 1863, on the Rhine, W. Nicolaus, J. f. O. 1865, p. 79. Its occurrence in Silesia, F. Tiemann, *op. cit.* pp. 217, 218. Sixteen to twenty observed 29 Oct. 1864, near Wreschen in the province of Posen, F. Schwaitzer, *op. cit.* pp. 291, 292. Its occurrence in Holland, H. Meier, *op. cit.* pp. 293-295, J. P. v. W. Crommelin, N. T. D. 1865, pp. 239-241; in Mecklenburg, — v. Preen, J. f. O. 1865, p. 332; near Fontenay-sur-Eure, A. Marchand, R. Z. 1865, p. 264; in Switzerland, V. Fatio, Bull. Soc. Orn. Suisse, i. pp. 111-114; in England, R. Tyrer, Zool. p. 9563.

TURNICIDÆ.

Turnix rufilatus is a new species from Celebes, most resembling *T. fasciatus*, but that has a black head and a darker belly. A. R. Wallace, P. Z. S. 1865, p. 480.

Turnix rostratus is a new species from Formosa. R. Swinhoe, Ibis, 1865, pp. 543, 544.

MEGAPODIIDÆ.

SCHLEGEL, H. Notice sur les espèces du genre *Megapodius* habitant l'archipel Indien. Nederl. Tijdschr. Dierk. 1865, pp. 259-264.

The author reviews Mr. G. R. Gray's paper (P. Z. S. 1861, pp. 288-296), limiting himself to the species of the restricted genus *Megapodius*, which he divides into two groups, those having light-coloured and those having dark-coloured feet. Under the name *M. duperreyi* he unites the *M. reinwardti*, Wagl., *M. rubripes*, Temm. (*nec* Q. & Gaim.), *M. tumulus*, Gould, and *M. gouldi*, Gray. This, with *M. bernsteini*, *M. nicobariensis*, *M. macgillivrayi*, and *M. lapeyrousii*, forms his first group. In his second he places *M. freycineti* (to which he refers *Alecthelia urvillii*, Less., and *M. quoyi*, Gray), *M. forsteni*, *M. gilberti*, and *M. wallacii*. With the other species, known only by their eggs or by insufficient descriptions, Prof. Schlegel does not trouble himself.

Megapodius nicobariensis is figured. A. v. Pelzeln, Reise Novara, Vögel, tab. iv., and its eggs, tab. vi. fig. 12.

Talegalla lathamii is figured. J. Wolf, Zool. Sketches, 2nd series.

TINAMIDÆ.

Crypturus rufescens. Some particulars of its habits are given. — de Vernouillet, Bull. Soc. Impér. d'Acclimat. 1865, pp. 600, 601.

GRALLÆ.

RALLIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 7^{me} Livraison. RALLI. Leyde: 1865. Royal 8vo, pp. 76.

This portion of the Catalogue of the Leyden Museum is practically complete, though still wanting about half the "Résumé." In it the author includes the genera *Grus* (!) with twelve species, *Aramus* one species, *Rallus* eleven, *Aramides* five, *Rallina* ten, *Hypotaenidia* four, *Crex* six, *Himantornis* one, *Porzana* fourteen, *Gallinula* fourteen, *Porphyrio* eight, *Fulica* five, *Parra* eight, *Palamedea* three, *Ocydromus* two, and *Eurypyga* two species. Like the rest of Prof. Schlegel's Catalogues, this will be found in future an absolute necessity to all ornithologists who are engaged with the group to which it refers, and on that account there is less need to enter into details respecting it; but some few particulars of identification, which seem to be the most important or most novel, are given below. The groups above mentioned are represented in the Leyden Museum by about 630 mounted skins and upwards of forty osteological specimens! Professor Schlegel preserves his excellent method of giving characteristic descriptions of each species and (to use his term) "conspecies."

Rallina rosenbergi is a new species from the north of Celebes, resembling *R. plumbeiventris* in size, but having a larger bill, greenish-grey feet, differently coloured plumage, and the eyes surrounded by a large bare space. H. Schlegel, N. T. D. 1865, pp. 212, 213.

Rallina minahasa, Wallace, is referred to *R. tricolor*. H. Schlegel, Mus. P.-B., Ralli, p. 18.

Porzana carolina has occurred in England. A. Newton, P. Z. S. 1865, p. 196; H. S. Eyre, Zool. p. 9540.

Porzana moluccana and *P. rufigenis* are two new species,—the first from Amboyna and Ternate, the second, which is near *P. fasciata* and *P. rubiginosa*, from Borneo. A. R. Wallace, *op. cit.* pp. 480, 481.

Porzana leucophrys, Gould, is referred to *Rallus quadristrigatus*, Horsf. J. Gould, Handb. B. Austral. ii. p. 343. Both are identified with *Porphyrio cinereus*, Vieill. H. Schlegel, Mus. P.-B., Ralli, p. 32.

Porzana pusilla, an account of its breeding near Cottbus in Posen. — Kutter, J. f. O. 1865, pp. 334–341.

Rallus pectoralis, Gould (*see* Cuvier), is identified with *R. philippensis*, L., and referred to the genus *Hypotaenidia*. H. Schlegel, Mus. P.-B., *Ralli*, p. 23; J. Gould, Handb. B. Austral. ii. p. 334.

Rallus sulcirostris, Wall., from Bouru, is referred to *Hypotaenidia celebensis* (Quoy & Gaim.). H. Schlegel, Mus. P.-B., *Ralli*, p. 22.

Rallus lewini, Swains., is considered identical with *R. brachypus*, Swains.; J. Gould, Handb. B. Austral. ii. p. 336. Both are referred to *R. pectoralis* Cuv. (*see* Gould): H. Schlegel, Mus. P.-B., *Ralli*, p. 12.

Porphyrio martinica and *P. alleni* are referred to the genus *Gallinula*. H. Schlegel, Mus. P.-B., *Ralli*, p. 38.

A *Porphyrio*, the species not named, has occurred in England. W. Stares, Zool. p. 9418.

Gallinula frontata, Wall., is considered identical with *G. hæmatopus*, Temm. H. Schlegel, Mus. P.-B., *Ralli*, p. 44.

Gallinula burnesi from India, *G. orientalis* from the Eastern Archipelago, and *G. galeata* are all referred to *G. chloropus* (L.). H. Schlegel, Mus. P.-B., *Ralli*, pp. 45-49.

Canirallus kidoides. The specimens so called obtained by Dr. Roch (Ibis, 1863, p. 173) proved to be *Rougetius bernieri*. A. Newton, P. Z. S. 1865, p. 836.

Corethrura guatemalensis, Lawr. (Ann. Lyc. N. Y. 1863), is probably identical with *C. rubra*, Schl. & Salv. (P. Z. S. 1860, p. 300). O. Salvin, Ibis, 1865, p. 238.

Aramides zeledoni is described as a new species from Brazil, coming very near *A. bicolor* from Chili, but is smaller and has the throat dark grey. A. v. Pelzeln, Reise Novara, Vögel, p. 133.

Ocydromus australis is figured. J. Wolf, Zool. Sketches, 2nd series.

PARRIDÆ.

Hydrophasianus chirurgus has occurred in Formosa. R. Swinhoe, Ibis, 1865, pp. 541, 542.

Parra gallinacea, the egg described. E. P. Ramsay, Ibis, 1865, pp. 305, 306; J. Gould, Ann. & Mag. N. H. 3rd ser. xvi. p. 70 (from P. Z. S. 1864, p. 661) (*cf.* Zool. Record, i. p. 64).

SCOLOPACIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 7^{me} Livraison. SCOLOPACES. Leyde: 1865. Royal 8vo, pp. 103-112.

The two preceding portions of this Catalogue were briefly noticed in the 'Record' for last year (p. 91). The concluding part, which we had not then received, contains descriptions of the genera *Recurvirostra* and *Himantopus*, which, according to the arrangement we have adopted, are classed under the next family. The author's identifications are in many cases most important, and several of them are noticed below, but, for the reason previously stated, it does not seem incumbent upon us

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to dwell at great length on these details. The Leyden Museum contains no less than 1170 mounted skins, and 48 osteological preparations of what we term *Scolopacidae*, a group which has been so long without revision by a competent authority, that it had become almost impossible for ornithologists to get any connected idea of what species were already described; and, in consequence, through pardonable ignorance of each other's labours, a very great number of birds have been twice, thrice, or even more times redescribed as new, thus forming an enormous mass of synonyms, with which any ordinary naturalist would find himself quite powerless to cope. The amount of materials at Prof. Schlegel's command, combined with his singular patience, has enabled him to deal with the subject most successfully.

Scolopax rochussemi is a new and remarkable species from Greater Obi in the Halmaheira Islands, most nearly resembling *S. rusticola* in appearance, but stouter and with a longer bill than that bird. The first remex is only some lines shorter than the following ones. H. Schlegel, N. T. D. 1865, pp. 254-256.

Scolopax rusticola has the power of inflexing the upper mandible, and the manner in which the movement is performed is illustrated by engravings. Ludwig Beckmann, Zool. Garten, 1865, pp. 130-133, figs. i.-iv. (Cf. R. Hill, Proc. Acad. Philad. 1864, p. 65, note; Zool. Record, i. p. 93.)

Gallinago burka, *G. stenura*, and *G. solitaria* = *G. megalis*, minute particulars given. R. Swinhoe, Ibis, 1865, pp. 231-233.

Limnocyptes (*Gallinago*) *gallinula* is figured. J. Gould, B. G. B. part viii.

Schœniclus albescens, Gould, from Australia, is identified with *Calidris australis*, Cuv., and referred to the genus *Actodromas*. J. Gould, Handb. B. Austral. ii. p. 257. The first-named species is considered synonymous with *Tringa minuta*, Leisler, and the second with *Totanus acuminatus*, Horsf., to which also *Tringa rufescens*, Middend. (*nec* Vieillot), is referred. H. Schlegel, Mus. P.-B., *Scolopaces*, pp. 43 and 38.

Schœniclus magnus, Gould, is identified with *Totanus tenuirostris*, Horsf., and *Tringa crassirostris*, Temm. & Schleg. J. Gould, Handb. B. Austral. ii. p. 260. On the other hand, it is averred that *Totanus tenuirostris*, Horsf., is synonymous with *T. stagnatilis*, Bechst. H. Schlegel, Mus. P.-B., *Scolopaces*, pp. 28 and 68.

Totanus griseopygius, Gould, is referred to *T. pulverulentus*, Müller, and also to *T. incanus* (with which *T. brevipes* is synonymous). H. Schlegel, Mus. P.-B., *Scolopaces*, p. 74. J. Gould, Handb. B. Austral. ii. p. 268.

Limnocinclus is the name proposed for a new genus to receive the *Tringa acuminata*, Horsf. (*T. australis*, Jard. & Selby), of Australia, and the *T. maculata*, Vieill., of North America (*T. pectoralis*, Say). The former is said to "run about amongst the grass and herbage much after the manner of the true Snipes;" but no structural characteristics of the proposed genus are given. J. Gould, Handb. B. Austral. ii. p. 254.

Tringa canutus has occurred at Moreton Bay in Australia. J. Gould, Handb. B. Austral. ii. p. 259.

Tringa maculata, Vieill. (*T. pectoralis*, Say.), has again occurred in England. H. Stevenson, Zool. p. 9807.

Tringa pygmaea (Lath.) (*T. platyrhyncha*, Temm.), various observations upon it. It has the chin bare, a character unique and hitherto unnoticed among other European *Tringa*. G. Lunel, Bull. Soc. Orn. Suisse, 1865, pp. 31-37, pl. i.

Totanus (*Helodromas*) *ochropus* is figured on its singularly placed nest. J. Gould, B. G. B. part viii.

Actitis empusa, Gould, from Australia, is identified with *A. hypoleucus* of Europe. J. Gould, Handb. B. Austral. ii. p. 263.

Numerius australis, Gould, is identified with *N. cyanopus*, Vieill., H. Schlegel, Mus. P.-B., *Scolopaces*, pp. 90, 91. J. Gould, *op. cit.* p. 277.

Numerius uropygialis, Gould, is referred to *N. phaeopus*, Lath., H. Schlegel, Mus. P.-B., *Scolopaces*, p. 93. The two birds differentiated, J. Gould, Handb. B. Austral. ii. p. 279.

Numerius minutus, Gould, referred to *N. minor*, Müller, H. Schlegel, Mus. P.-B., *Scolopaces*, p. 101. J. Gould, Handb. B. Austral. ii. p. 280.

CHARADRIIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas, 7^{me} Livraison. CURSORES. Leyde: 1865. Royal 8vo. pp. 80.

The general remarks already made on the author's Catalogues of *Ralli* and *Scolopaces* apply equally to this work. The confusion hitherto existing in the nomenclature of the *Scolopacidae* was only equalled by that found in the *Charadriidae*. The author divides his *Cursores* into two groups, *Otides* and *Charadrii*. Of the former, the *Otididae* will be noticed under the next family; but the genera *Cursorius*, *Glareola*, and *Ædicnemus* have to be mentioned here. The first genus is represented in the Leyden Museum by seven species, the second by five, and the third by seven. Of the *Charadrii* twenty-one species are referred to the genus *Charadrius* (including the smaller forms more commonly termed *Ægialites*), three to *Strepsilas*, four to *Morinellus*, three with a "conspecies" to *Pluvialis*, thirteen to *Vanellus*, nine to *Lobivanellus*, and six to *Hæmatopus*. To these should be here added, from the catalogue of "*Scolopaces*," three species of *Recurvirostra* and five of *Himantopus*, which will show the wealth of the museum under the author's direction, to contain 709 mounted skins and 17 osteological specimens. We are sure we are only echoing the wish of naturalists of every country when we express our sincere hope that Prof. Schlegel may be able to bring his arduous series of catalogues to a successful termination. Their utility is so obvious that it seems almost ungracious to say a word of complaint respecting what we must term the awkward and inconvenient system of pagination adopted in them—awkward when a student wishes to find any particular

species, and inconvenient when a writer wishes to cite a passage; and cited these catalogues must be in future to a degree which is hardly at the present moment appreciated.

Cursorius superciliosus is described as a new species, though obtained more than ten years since, and mentioned by the author in his former list of North-east African birds under the name of *C. chalcopterus*, from which he now considers it to differ. Some remarks on the four other species known to him are added. T. v. Heuglin, J. f. O. 1865, pp. 98-100.

Cursorius bisignatus is a new species from Begnuela allied to *C. bicinctus*, but much smaller, paler in colour, with the black collar hardly visible behind, and other distinctive features. G. Hartlaub, P. Z. S. 1865, pp. 87, 88; J. J. Monteiro, *op. cit.* p. 90.

Cursorius gallicus has again occurred in England. T. H. Allis, Zool. p. 9418.

Edicnemus bistriatus occurs near Vera Cruz in Mexico. P. L. Sclater, P. Z. S. 1865, p. 397.

Chionis minor is common on both the Prince Edward's Islands and Kerguelen's Land. F. W. Hutton, Ibis, 1865, p. 277.

Chactusia leucura has occurred in Malta, and is figured. C. A. Wright, Ibis, 1865, pp. 459-462, pl. x.

Pluvianus ægyptius is figured. J. Gould, B. As. part xvii.

Vanellus cristatus, with young, is figured. J. Gould, B. G. B. part vii.

Charadrius xanthochilus, Wagl. ?, *C. longipes*, Temm., and *C. pluvialis orientalis*, Schl., are all referred to *C. pluvialis*. A. v. Pelzeln, Reise Novara, Vögel, p. 115.

Charadrius longipes has again occurred at Malta. C. A. Wright, Ibis, 1865, pp. 462, 463.

Charadrius veredus, Gould, is the young of *C. asiaticus*, Pall., with which species also is identified *C. montanus*, Towns. H. Schlegel, Mus. P.-B., *Cursores*, p. 38; J. Gould, Handb. B. Austral. ii. p. 229.

Ægialophus is the name proposed for a new genus to receive the *Ægialites cantianus* of Europe, the *Æ. ruficapillus* of Australia, and many other species, "all, or nearly all, of which have black bills and long legs, and are less banded with black than the members of the genus *Ægialites*." J. Gould, Handb. B. Austral. ii. pp. 234, 235.

Ægialites hiaticula has been received from Port Stevens, Australia. *Op. cit.* ii. p. 231.

Hiaticula inornata, Gould, from Australia, is referred to the widely ranging *Charadrius geoffroyi*, Wagler, with which *C. leschenaulti*, Lesson, *C. asiaticus*, Horsf. (*nec* Pallas), appears to be synonymous. H. Schlegel, Mus. P.-B., *Cursores*, p. 39.

OTIDIDÆ.

Eighteen species of the family, which are all referred to one genus, *Otis*, and are represented by seventy mounted skins, are contained in the galleries of the Leyden Museum. H. Schlegel, Mus. P.-B., *Cursores*, pp. 1-18.

Otis tarda. Rediscovery of the gular pouch in the male of this bird, W. H. Cullen, Ibis, 1865, pp. 143-146, figs. Description of the structure, W. H. Flower, P. Z. S. 1865, pp. 747, 748. Six examples captured through freezing, A. Marchand, R. Z. 1865, p. 265. Its occurrence in England, with anatomical description of the specimen, a female, W. W. Boulton, Zool. pp. 9442-9446.

Otis hartlaubii is denied specific rank. H. Schlegel, Mus. P.-B., *Coursors*, p. 9.

Otis houbara. This species, and not *O. macqueeni*, was met with at Djulfa in Persia. F. de Filippi, Viagg. Pers. p. 351.

Otis picturata is a new species from Benguela, belonging to the *Eupodotis* group. G. Hartlaub, P. Z. S. 1865, p. 88, pl. vi.; J. J. Monteiro, *op. cit.* p. 90.

GRUIDÆ.

An account of the specimens belonging to this family which are contained in the Leyden Museum is given by H. Schlegel, Mus. P.-B., *Ralli*, pp. 1-7.

Balearica regulorum (Licht.) is not recognized as distinct from *B. pavonina* (L.). H. Schlegel, Mus. P.-B., *Ralli*, p. 7.

Anthropoides virgo, its occurrence in Sweden. R. v. Willemoes-Suhm. Zoolog. Garten, 1865, pp. 151, 152.

ARDEIDÆ.

Ardea leucophaea, Gould, from Australia, is identified with *A. cinerea*, L., and *A. rectirostris*, Gould, from the same country, with *A. sumatrana*, Raffles. J. Gould, Handb. B. Austral. ii. pp. 295, 296.

Ardea cinerea. Notice of a Heronry in Switzerland, V. Fatio, Bull. Soc. Orn. Suisse, 1865, pp. 73, 78. It is figured, with young, J. Gould, B. G. B. part viii.

Herodias syrmatorphorus, *H. plumiferus*, *H. immaculata*, and *H. pannosus*, Gould, from Australia, are identified respectively with *Ardea alba*, L., *Egretta egretoides*, Bp., *Ardea melanopus*, Wagl., and *A. asha*, Sykes. *Herodias garzetta*, L., has been killed near Brisbane. J. Gould, Handb. B. Austral. ii. pp. 301-305.

Nycticorax gardeni is confounded with *N. griseus*. H. G. Vennor, Canad. Nat. 1865, pp. 53-56.

Ardetta stagnatilis, Gould, from Australia, identified with *Ardea javanica*, Horsf. J. Gould, Handb. B. Austral. ii. p. 317.

Ardeola minda, with young, is represented. E. Bettoni, Ucc. Lombard. fasc. i.

Botaurus pinnatus. A specimen from Greytown, Nicaragua, is with some doubt referred to this species, which does not appear to have been before recorded from the north of the Isthmus of Panama. G. N. Lawrence, Ann. Lye. N. Y. 1865, p. 185.

Botaurus australis, Gould, from Australia, is identified with *Ardea pycnolopha*, Wagl. J. Gould, Handb. B. Austral. ii. p. 313.

CICONIIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 7^{me} Livraison. CICONIÆ. Leyde: 1864. Royal 8vo, pp. 26.

Descriptions, according to the author's classification, of seven species of *Ciconia*, four of *Mycteria*, two of *Anastomus*, four of *Tantalus*, and six of *Platalea* are contained in this catalogue. The specimens illustrating the group in the Leyden Museum amount to 113 mounted skins and 37 skeletons and crania.

Ciconia alba. The young birds only, and not the old ones, as has often been supposed, pair before their departure for Germany. A. J. Jäckel, Zool. Garten, 1865, pp. 378, 379.

"*Ciconia ruysenaersi*, von Heuglin, Ibis, 1864, p. 430" (qu. *C. pruysenaeri*?) (cf. Zool. Record, i. p. 93), is referred to *C. leucocephalus*, Gm., *C. umbellata*, Wagler, *C. biclavata*, Hodgs. H. Schlegel, Mus. P.-B., *Ciconiæ*, p. 9.

Baleniceps rex is figured. J. Wolf, Zool. Sketches, 2nd series.

Platalea major and *P. minor* are identical. H. Schlegel, Mus. P.-B., *Ciconiæ*, p. 21. (Cf. R. Swinhoe, Ibis, 1864, p. 364-369.)

Platalea regia, Gould, is referred to *P. melanorhyncha*, Reich. H. Schlegel, *op. cit.* p. 23.

Ibis falcinellus (L.): detailed tables of measurements of examples from various parts of the world, which are all referred to this species, are given. A. v. Pelzeln, Reise Novara, Vögel, pp. 125-127.

AVIS INCERTÆ SEDIS.

Rhinochetus jubatus is figured. J. Wolf, Zool. Sketches, 2nd series.

ANSERES.

PHŒNICOPTERIDÆ.

Phœnicopterus erythræus is very abundant in Damaraland, especially on the coast. *P. minor*, on the contrary, is of rare occurrence there. Detailed descriptions of both species given. C. J. Andersson, Ibis, 1865, pp. 64-66.

ANATIDÆ.

Some bones found in the Zebbug Cave at Malta appear to belong to a gigantic *Cygnus*, nearly one-third larger than *C. olor*, with long legs and short toes, which is named *C. falconeri*. With them were others, which are assigned to *C. olor* (?), *C. bewicki* (sc. *minor*) (?), and a *Bernicla* or large *Anas*. The paper is to be printed in full in the Zoological Transactions. W. K. Parker, P. Z. S. 1865, pp. 752, 753.

Cygnus passmorii is described as new, from North America, smaller than *C. buccinator*, with a black bill and a more angular forehead than either that species or *C. americanus*, besides possessing some further anatomical characters. The sternum and trachea figured and described by Yarrell (Trans. Linn.

Soc. xvii. pp. 1-4, tab. i.) as belonging to *C. buccinator* are referred to the new species. W. Hincks, Proc. Linn. Soc. viii. pp. 1-8, *cum figg.*

Cygnus olor breeds, though sparingly, in Neu-Vorpommern. L. Holtz, J. f. O. 1865, pp. 190, 191.

Chloephaga magellanica is figured. J. Wolf, Zool. Sketches, 2nd ser.

Casarca leucoptera is figured. *Idem*, loc. cit.

Querquedula crecca and *Q. circia* are figured. J. Gould, B. G. B. part vii.

Spatula clypeata has occurred in Australia. J. Gould, Handb. B. Austral. ii. p. 370.

Fuligula marila, *F. cristata*, and *F. clangula* are figured. C. J. Sundevall, Sv. Fogl. pl. lxii.

Fuligula glacialis and *F. (Somateria) stelleri* are figured. *Idem*, op. cit. pl. lxiii.

Fuligula (Edemia) fusca and *F. (Edemia) nigra* are figured. *Idem*, op. cit. pl. lxi.

Edemia perspicillata has again occurred in England. E. H. Rodd, Zool. p. 9794.

Mergus merganser, *M. serrator*, and *M. albellus* are figured. C. J. Sundevall, Sv. Fogl. pl. lxiv.

Mergus squamatus from China is described as a new species. J. Gould, P. Z. S. 1864, pp. 184, 185; Ann. & Mag. N. H. 3rd ser. xv. p. 71.

LARIDÆ.

Chroicocephalus philadelphia (Ord.) has occurred at Falmouth. E. H. Rodd, Journ. Roy. Inst. Cornwall, no. iv. p. 89; *Idem*, Zool. p. 9501.

Xema sabini has again occurred in England. M. A. Mathews, Zool. p. 9470.

Stercorarius catarrhactes breeding on Prince Edward's Islands and Kerguelen's Land. F. W. Hutton, Ibis, 1865, pp. 277, 278; figured, J. Gould, B. G. B. part viii.

Stercorarius pomatorhinus and *S. longicaudus* both occur in Spitsbergen, A. G. Malmgren, Cefvers. Vet.-Akad. Förh. 1864, pp. 391-393, 411, 412; A. Newton, Ibis, 1865, p. 509-511; both are figured, J. Gould, B. G. B. part viii.

Stercorarius parasiticus, with young, is figured. J. Gould, B. G. B. part viii.

Sylocheidon strenua, Gould, is identified with *S. caspia*, Pall. J. Gould, Handb. B. Austral. ii. p. 392.

Thalasseus torresii, Gould, identical with *Sterna affinis*, Rüpp. (*nee* Horsf.), and *S. bengalensis*, Less. H. Schlegel, Mus. P.-B., *Sterna*, p. 6; J. Gould, Handb. B. Austral. ii. p. 397.

Sterna pelecanoides, King, is referred to *S. cristata*, Steph., J. Gould, Handb. B. Austral. ii. p. 394. This last considered identical with *S. galericulata*, Licht., and the former distinct, with *S. ressa*, Müller, as a synonym, H. Schlegel, Mus. P.-B., *Sterna*, pp. 7-9.

Sterna hirundo and *S. macrura* figured. J. Gould, B. G. B. part viii.

Sterna grisea, Horsf., from Java, *S. indica*, Steph., from India, and *S. Au-*

viaticus, Gould (*nec* Naum.), from Australia, referred to *S. hybrida*, Pallas. H. Schlegel, Mus. P.-R., *Sternæ*, pp. 32, 33.

Sternula minuta figured, J. Gould, B. G. B. pt. viii.; its great abundance, with *Hydrochelidon nigra* and *H. leucoptera*, near Pisa, H. Giglioli, Ibis, 1865, p. 63.

Hydrochelidon leucoparia has again occurred in England. J. Gatcombe, Zool. p. 9629.

PROCELLARIIDÆ.

Diomedea exulans, *D. melanophrys*, *D. fuliginosa*, *Procellaria gigantea*, *P. equinoctialis*, *P. hirsuta*, Licht. (*nec* Kuhl), *P. macroptera*, *P. glacialis*, *P. mollis*, *Daption copensis*, and *Prion vittatus* form the subjects of some valuable remarks, F. W. Hutton, Ibis, 1865, pp. 278-288.

PELECANIDÆ.

Graculus bairdi, "Gruber, MSS.," is described as a new species from the Farallone Islands, closely related to *G. violaceus*, which it replaces on the coast of California, but has a slenderer bill and conspicuous white patches on the flanks. It may be the *Phalacrocorax leucurus* or *P. leuconotus* of Audubon, and it is supposed to have been also described as *Graculus bairdi*. J. G. Cooper, Proc. Acad. Philad. 1865, pp. 5, 6. A further note on this bird is added by J. Hepburn, *loc. cit.*

Sula sinicadvena is a supposed new species from China, hitherto confounded with *S. fusca* (P. Z. S. 1863, p. 258), but it has the whole of the under-neck and breast the same colour as above. R. Swinhoe, Ibis, 1865, p. 109.

Pelecanus philippensis, Gmel., a specimen from Formosa described. R. Swinhoe, Ibis, 1865, pp. 111, 112.

The osteology of *Pelecanus erythrorhynchus*, *P. crispus*, and *P. onocrotalus* is described. C. Giebel, Zeitschr. gesamt. Naturwiss. 1865, pp. 250-257.

The existence of communications between the lungs and the subcutaneous air-cells in birds of this family is confirmed. A. Milne-Edwards, Ann. des Sc. Nat. 5th ser. iii. pp. 137-142.

SPHENISCIDÆ.

Aptenodytes penanti brought alive to England, P. Z. S. 1865, p. 318; the same bird (though by mistake named *A. forsteri*) was found on dissection to have a well-developed urinary bladder, R. Owen, *op. cit.* p. 439. Figured, 'Intellectual Observer.'

Eudyptes chrysocome, with young, figured. A. v. Pelzeln, Reise Novara, Vögel, tab. v.

COLYMBIDÆ.

Colymbus glacialis, supposed to breed in Shetland. H. Saxby, Zool. pp. 9524, 9525.

Eudytes (sc. *Colymbus*) *arcticus*, observations on the moult of this species. The author takes a view opposed to that of Naumann and Dr. Paulsen. — Böck, J. f. O. 1865, pp. 367, 368.

Both the above and also *Colymbus septentrionalis* are figured. J. Gould, B. G. B. part vii.

ALCIDÆ.

OWEN, RICHARD. Description of the Skeleton of the Great Auk or Garfowl (*Alca impennis*, L.). Trans. Zool. Soc. vol. v. pp. 317-335, pls. li., lii.

This publication is fully noticed under the heading "Anatomy and Physiology."

Alca impennis. A very complete summary of this bird's history is given in an article entitled "The Gare-fowl and its Historians." Nat. Hist. Rev. Oct. 1865, pp. 467-488.

"A perfect specimen of a mummified *Alca impennis*," from Funk Island, has been presented to the Museum of Harvard College, L. Agassiz, Rep. Mus. Comp. Zoology, 1864, pp. 16-22. Further particulars of this and of other specimens found at the same place, E. [Field, Bishop of] Newfoundland, Proc. Nov. Scot. Inst. Nat. Sci. ii. p. 145.

Two specimens of the bird in the University Museum at Breslau. Alex. v. Homeyer, J. f. O. 1865, p. 151.

Tibia and humerus found in Caithness figured, S. Laing, 'Prehistoric Remains of Caithness,' pp. 50, 51. Notice of this discovery, Ibis, 1865, pp. 116, 117 and (with many incorrect details) E. Foxton-Firby, Naturalist, i. p. 323.

Uria bruennichi, as well as *U. lacrymans*, is referred to *U. troile*. The latter is found in Bear Island, but not in Spitsbergen. A. J. Malmgren, Cefvers. Vet.-Akad. Förh. 1864, pp. 404, 408.

Cepphus mandti differentiated from *C. grylle* and the allied species *C. columba* and *C. carbo*. A. Newton, Ibis, 1865, p. 519.

Fratercula glacialis specifically distinct from *F. arctica*, and figured. A. Newton, Ibis, pp. 212, 213, 521-524, pl. vi.

Fratercula arctica, with young, is figured. J. Gould, B. G. B. part viii.

STRUTHIONES.

STRUTHIONIDÆ.

ALLIS, THOMAS. Notice of a nearly complete Skeleton of a *Dinornis*, presented by Dr. Gibson to the Museum of the Yorkshire Philosophical Society. Proc. Linn. Soc. viii. pp. 50-52.

This is the paper referred to by us last year (Zool. Record, i. pp. 97, 98), which we had not then seen. It does not appear to us, however, that we can now add any further details to the abstract we formerly gave.

— Further Note on a Skeleton of *Dinornis robustus*, Owen, in the York Museum. Proc. Linn. Soc. viii. pp. 141, 142.

This contains corrections of a few unimportant errors made in the author's former paper—the one noticed by us immediately above.

HECTOR, JAMES. Notes on the Moa-bones in the New Zealand Exhibition of 1865. Proc. Zool. Soc. 1865, pp. 749-751.

This paper contains a list of the various remains, bones, or egg-shells of different species of *Dinornis* exhibited as above mentioned. The dimensions of the specimens in this magnificent collection are given in a table; and though the nomenclature is not to be implicitly relied upon, it appears that the following species were represented: *D. giganteus*, *D. didiformis*, *D. dromæoides*, *D. ingens*, *D. crassus*, *D. struthioides*, *D. curtus*, *D. ingens*, var. *robustus*, and *D. casuarinus*. There seems to be abundant evidence of the contemporaneous existence of at least some of these huge birds and the present race of men in New Zealand.

Dinornis robustus, its feathers described and figured. W. S. Dallas, P. Z. S. 1865, pp. 265-268; Ann. & Mag. Nat. Hist. 3rd ser. xvi. pp. 66-69; extract, Ann. Sci. Nat. iv. p. 292.

Dinornis ingens, an egg supposed to belong to this species exhibited. S. Stevens, P. Z. S. 1865, pp. 617, 618; Hector, *op. cit.* p. 750. Cf. Zool. pp. 9454, 9455.

Cnemiornis is the name of a proposed new genus of extinct birds from New Zealand, having a remarkable antero-proximal tibial process. *C. calcitrans* is the species on which it is founded. It is about the size of *Casuarus bennetti*. R. Owen, P. Z. S. 1865, p. 438. [The paper will be printed entire in the 'Transactions of the Zoological Society.']

Struthio camelus. The muscular mechanism of its leg elaborately described, S. Houghton, Ann. & Mag. N. H. 3rd ser. xv. pp. 262-272, pls. vi., vii. The young figured, J. Wolf, Zool. Sketches, 2nd ser.

AVES.

A V E S

BY

ALFRED NEWTON, M.A., F.L.S., etc.

THE extent of the literature of Ornithology for the year 1866 appears to have been fully as great as for its two immediate predecessors. The number of really valuable treatises is very considerable, though we have not to record the publication of any works likely to be followed by the same important effects on the progress of the science as those of Dr. Jerdon and Mr. Gould on the Birds of India and Australia respectively. But the year will be for ever memorable in the annals of Ornithology as being that in which Mr. Clark's discovery of the Dodo's remains bore fruit. The new systematic classification set forth by Professor Lilljeborg has attracted no small attention from some high authorities; but, unfortunately for us, we are unable to appreciate its advantages. A pleasing feature of the year also is the increasing punctuality of appearance on the part of different journals, and on this score we have now scarcely any complaint to make. Our thanks, however, are not the less due to many of our fellow labourers who have supplied us with separately printed copies of, we believe, nearly all the more important communications; and we trust that few works of real merit have escaped our notice.

BIBLIOGRAPHY.

HARTLAUB, GUSTAV. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1865. Archiv für Naturg. Jahrg. xxxii. Band ii. pp. 34. Berlin: 1866.

With his accustomed skill Dr. Hartlaub has executed his *Twentieth Annual Report* on the progress of Ornithology, delineating in a concise manner the general features of this branch of science as exhibited during 1865. Of the principal works published in that year we are glad to find our own opinion corroborated by that of a judge with so much experience, though it is to be observed that he does not think so highly of Mr. Gould's 'Handbook' as we did (*Zool. Record*, ii. p. 74). Dr. Hartlaub has abandoned his former classification in favour of that of Prof. Lilljeborg (*vide infra*), a change which, we would humbly submit, is not an improvement.

BEAUMONT, J. ÉLIE DE. Notice sur les travaux scientifiques de son Altesse le Prince Charles-Lucien Bonaparte. Paris: 1866. 8vo, pp. 22.

The ornithological publications noticed are forty-seven in number. (Cf. Richard, Bull. Soc. Imp. d'Acclimat. 1866, pp. 404-438.)

BLYTH, E. The Ornithology of India. A Commentary on *Dr. Jerdon's 'Birds of India.'* [See "INDIAN REGION."]

CASSIN, JOHN. Fasti Ornithologiæ, No. 2.—'Der Naturforscher.' Proc. Acad. Philad. 1866*, pp. 35-38.

The author gives a list of the ornithological papers (several of which, he says, are highly interesting) contained in 'Der Naturforscher,' a journal published at Halle from 1774 to 1804, and edited first by Walch and afterwards by Schreber. (Cf. *Ibid.*, 1866, p. 417.)

HARTING, J. E. The Birds of Shakespeare. Zoologist, Second Series, pp. 353-360, 393-424, 465-472.

A very laudable attempt to identify scientifically the species mentioned by the poet. The series of papers is still being continued in the same journal for the present year.

SÜNDEVALL, C. J. Les Oiseaux d'Afrique de Levaillant, critique de cet ouvrage. Rev. et Mag. de Zool. 1865, pp. 408-414, 1866, pp. 42-46, 189-197, 227-233.

A continuation of M. Olph-Galliard's translation of this paper (cf. Zool. Record, ii. p. 55).

THE GENERAL SUBJECT.

DES MURS, O. Un mot sur les Oiseaux fossiles en général, et en particulier sur l'*Archæopteryx lithographica*. Rev. et Mag. de Zoologie, 1866, pp. 256-260.

The study of the class of birds, to be complete, must not be limited by an examination merely of existing species. This opinion is beginning to be fully recognized by ornithologists; and acting upon it, the author proceeds to give his idea of the possible affinities of the celebrated Solenhofen fossil, which he thinks must have belonged to the swimming birds, as its long tail would have been a great inconvenience to it had it been of arboreal or terrestrial habits. The author, however, pronounces this judgment in anticipation of Prof. Owen's memoir on the species.

ESTERNO, M. C. Indication des sept lois du vol ramé et des huit lois du vol à voile. 2^{me} édition. Paris (?): 1865.

An abstract of this work, which we ourselves have not seen, appears in 'Der Zoologische Garten' for 1866 (pp. 159, 160).

* We owe the possession of a separately printed copy of this paper to the kindness of the author, but the 'Proceedings' of the Philadelphia Academy for 1866 have not been received in England. May 29, 1867.

[The first copies of this Journal (1866) reached England in the first week of June 1867, which appears the more singular as it is issued in Paris. The author of this Record having gone abroad at that time, the references have been added by the EDITOR.]

HITCHCOCK, C. Description of a new Reptilian Bird [*Tarso-dactylus expansus*] from the Trias of Massachusetts. Ann. Lyc. New York, 1866, pp. 301-302.

LILLJEBORG, W. Outlines of a Systematic Review of the Class of Birds. Proc. Zool. Soc. 1866, pp. 5-20.

The author first gives a concise sketch of the "Literature" of the subject, and then passes to the "Principles." "Irritability" seems to him to be the most distinguishing character for birds, and to be possessed in the highest degree by the *Passeres*. He does not mean by irritability muscular strength alone, but vivacity and activity generally. The birds of prey, though generally placed highest, are in reality far behind the *Passeres*. The former also correspond with the lower groups of Columbine and Gallinaceous birds, outwardly as regards the nature of their wing-coverts, and inwardly as regards their *carotides communes*. "A system that places the dirty Vultures highest does not seem to us to indicate a correct idea of the nature of birds."

[We have here indicated, so far as we are able to understand them, what the author terms his "Principles" of Classification. Of the rest of his remarks on the subject we must confess our inability to see the drift. The character of "Irritability" is not again invoked, being perhaps left for a critic to show; nor is any hint given how it may be measured or its different degrees defined. We must therefore beg our readers who are curious in the matter of systematic classification to consult Prof. Lilljeborg's paper and judge for themselves; we can here only append a brief outline of its results.]

Prof. Lilljeborg divides the class *Aves* into three subclasses: (I.) *Natatores*, (II.) *Cursores*, and (III.) *Insessores*. The first of these forms two sections:—(i.) *Simplicirostres*, containing three orders, (1) *Pygopodes*, (2) *Longipennes*, and (3) *Steganopodes*, and (ii.) *Lamelliostres*, consisting of a single order (4) of the same name. The second subclass is composed of three orders:—(5) *Grallæ*, (6) *Brevipennes*, and (7) *Gallinæ*. The third contains five orders:—(8) *Pullastræ*, (9) *Accipitres*, (10) *Strisores*, (11) *Zygodactyli*, and (12) *Passeres*. These twelve orders are subdivided into fifty-nine families and 144 sub-families.

Reprinted (in Report of Smithsonian Institution?) at Washington, with the characters translated from Latin into English by Professor Gill. 8vo, pp. 436-450.

MILLET, C. Études sur les oiseaux voyageurs et migrateurs et sur les moyens de les protéger. Bull. Soc. Imp. d'Acclimat. 1866, pp. 272-282.

A scheme is proposed for marking migrant birds by differently coloured threads, whereby their movements may be more certainly determined; and international protection of these species is recommended.

MILNE-EDWARDS, A. Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux fossiles de la France. Compt. Rend. lxii. (5 Mars 1866) pp. 506-515. Reprinted Ann. Sci. Nat. Zoologie, 5^{me} sér. v. pp. 229-240.

This is a report by MM. D'Archiac, Élie de Beaumont, Daubrée, De Verneuil, and De Quatrefages on the essay which obtained the great Prize of the Physical Sciences for 1865. As the work is now in course of publication, we hope to speak of it at greater length next year. The opinion of the reporters is most favourable to it; and those portions (bearing date 1867) which we have seen entirely justify their praise. All the fossil birds of the tertiary epoch can be included in the natural groups which still exist, though none of the species are identical with living forms, and some are types of new genera. Of the "quaternary" period twenty-three species have been determined, only one of which, a very large *Grus*, is extinct, though, as regards France, two species, *Lagopus albus* and *Nyctea nivea*, no longer exist there. (Cf. Ibis, 1866, pp. 413, 414.)

PUCHERAN, —. Sur les indications qui peut fournir la Géologie, pour l'explication des différences que présentent les Faunes actuelles. Rev. et Mag. de Zoologie, 1866, pp. 3-6, 81-88, 129-139, 241-255.

A continuation of the series of papers we noticed last year (Zool. Record, ii. pp. 58, 59). It is still unfinished. The first two portions contain no ornithological illustrations. From evidence afforded by the existing Mammalia, the author considers he has proved the intimate resemblance between the Faunas of Southern Asia and Southern Africa, and he then proceeds to inquire whether the ornithofauna of each of these regions does not exhibit the same resemblance; but here, though the families are the same, the genera, however closely allied, are not. Dr. Pucheran, after giving long lists of genera, arrives at the conclusion that the three large continents of the Old World present one single fauna only, due allowance being made for the differences existing between northern and southern forms, which appear to meet in a zone corresponding with the "Equateur de contraction" of M. Reynaud; and this may therefore be regarded as the veritable "Equateur zoologique." The author then treats of the Algerian fauna, and finds that the birds belonging to it are smaller than their European representatives, which he considers to be in harmony with the smaller extent of their range, and to be post-established. He finally dwells on the slight importance of the different characters of the allied species of the two countries, as tending to the inference that they must have had a common origin. [See also Record on Mammalia, p. 13.]

SALVIN, O. (See SCLATER, P. L.)

SCHLEGEL, H. Observations Zoologiques, III. Nederlandsch Tijdschrift voor de Dierkunde, iii. pp. 325-350.

The character of this paper is the same as of the two preceding articles of the series on which we commented last year (Zool. Record, ii. pp. 59-60). The following appear to be new species :—*Baza rufa*, *Noctua aruensis*, *Ptilotacula melanogenia*, *Caprimulgus papuensis*, *Carpophaga neglecta*; but of the crowd of facts concerning other species we can unfortunately here take no notice.

SCLATER, P. L., and SALVIN, OSBERT. Exotic Ornithology.

Part I. London: 1866. Imp. 4to, pp. 1-20, pls. i.-viii.

This work is intended to form a sequel to the 'Planches Coloriées' and 'Iconographie Ornithologique,' and well fulfils the expectations held out by its authors, who announced that, to the description of each species figured, they would add a synopsis of the other species of the genus, so that the letterpress will finally consist of a series of separate monographic essays. This is already done, in the only part of the work which now comes under our notice, with the genera *Lipaugus*, *Furnarius*, *Xipholena*, and *Vireolanius*. The species figured are *Lipaugus unirufus*, *L. subalaris*, *L. rufescens*, *Furnarius torridus*, *Xipholena atropurpurea*, *Ptilogonys caudatus*, *Vireolanius melitophrys*, and *V. pulchellus*. (Cf. Ibis, 1867, p. 123.)

SEELY, HARRY. An Epitome of the Evidence that Pterodactyles are not Reptiles, but a new subclass of Vertebrate Animals allied to Birds (*Saurornia*). Ann. & Mag. Nat. Hist. 1866, xvii. pp. 321-331.

As the principle of organization in the Pterodactyles was Avian, and the bones are nearly all Avian in their modifications, these animals must have been Avian. The author thus determines their place in nature :—

Mammalia.

Saurornia.

Aves.

Reptilia.

— Note on some new Genera of Fossil Birds in the Woodwardian Museum. Ann. & Mag. Nat. Hist. 1866, xviii. pp. 109, 110.

Ptenornis and *Macrornis* are two new genera from the Tertiary epoch; and *Lithornis emuianus* (!) is referred to a genus *Megalornis*. *Pelagornis* is the name proposed for a group of fossil birds from the Cambridge Greensand, with *P. barretti* as its type.

VIAN, JULES. Causeries Ornithologiques. Rev. et Mag. de Zool. 1866, pp. 401-410.

These relate to several species of *Anatidae*.

VINCELOT, —. Études Ornithologiques. Ann. Soc. Linn. de Maine et Loire, 1865, pp. 55-78.

The subjects of these studies are *Alcedo ispida* and the four common species of European *Columbidae*. The author's remarks are not distinguished by much novelty.

PALÆARCTIC REGION.

ALTUM, B. Auf Borkum im September 1865. Journ. für Orn. 1866, pp. 105-107.

Remarks only of no very general interest.

BELKE, GUSTAVE. Notice sur l'histoire naturelle de Radomysl, Gouvernement de Kieff. Bull. Soc. Imp. Nat. Moscou, 1866, xxxix. pp. 214-251, 490-527.

The only ornithological matter in the first of these articles is at pp. 218, 219, where the dates of migration of several birds of passage are given. The second furnishes (pp. 492-496) a list of the birds of the district (under 120 in number), to which some very meagre notes are added.

BLAKE-KNOX, H. Ornithological Notes from the County Dublin. Zoologist, S. S. pp. 93, 94, 295.

——. The Migratory and Wandering Birds of the County Dublin, with the times of their Arrivals and Departures. Zoologist, S. S. pp. 220-227, 300-307, 479-483.

COLLETT, ROBERT. Zoologisk botaniske Observationer fra Hval-øerne. Christiania : 1866. 8vo, pp. 83.

These observations refer to 195 species which occur in the Whale-Islands, situated on the east side of the entrance to the Christiania Fjord.

DROSTE, FERDINAND VON. Ergänzungen der Vögel Borkum's. Journ. für Orn. 1866, pp. 389-391.

A supplement to the paper noticed last year (Zool. Record, ii. p. 62). One more species is added to the list of birds breeding on the island, and twenty-one to those visiting it.

DUBOIS, C. F. Catalogue systématique des Oiseaux d'Europe. Bruxelles : 1866. 8vo, pp. 16.

This publication we have not seen. We quote its title from the 'Revue et Magasin de Zoologie' for 1866 (p. 350), where it is noticed.

FAUVEL, OCTAVE. Observations ornithologiques pour servir à la faune Normande. Bull. Soc. Linn. de Normandie, 1866, pp. 76-80.

Of local interest only.

FINGER, F. A. Einige Bemerkungen über Säugethiere und Vögel in Algerien. Zoolog. Garten, 1866, pp. 161-167.

A very few species only of birds mentioned, and these of the commonest.

FONTAINE, A. DE LA. Faune du Pays de Luxembourg, &c.—Deuxième Partie. Luxembourg : 1866, pp. 153-326.

The concluding portion of the work noticed last year (Zool. Record, ii. p. 64). The whole number of species noticed is 276; but this number includes poultry and pigeons, besides some whose claims to rank as such are very doubtful. *Sylvia rubecula*, having been accidentally omitted in its proper place, is inserted in the 'Additions,' which also contain notes of several others. (Cf. Ibis, 1867, p. 244.)

GERMAIN, R. Catalogue raisonné des oiseaux observés dans la 1866. [VOL. III.]

subdivision de Milianah (Algérie). Nouv. Arch. du Muséum, Bull. i. pp. 51-74.

One hundred and sixty-three species are enumerated, and a few notes from the author's personal observation are added.

GODMAN, FREDERICK DU CANE. Notes on the Birds of the Azores. Ibis, 1866, pp. 88-109, pl. iii.

The author stayed about three months in the archipelago on purpose to collect their birds and insects. After describing his movements among the islands, he enumerates the different species, 52 in number, which occur there. Of these, two, both belonging to *Fringillidæ*, are peculiar to the Azores, and one of them is now correctly described for the first time; but of several others local forms exist almost entitled to specific recognition. The ornithology of the archipelago, and the distribution of the species in it, seem to furnish strong evidence against the theory that they are the descendants of those which inhabited a continent now submerged. The author believes that all the species found in it have been introduced (some of them, may be, at a remote period) by storms, and that this process of introduction is being continued at present. There is a decided tendency among Azorean forms to acquire a darker plumage, together with stronger bills and legs than are possessed by their continental representatives. The islands which lie most to the eastward have the most species, and the number diminishes gradually towards the west. A compendious table, showing the geographical distribution of Azorean birds, is included in the paper, which is elaborated with much care, and is of an eminently suggestive character.

GOULD, JOHN. The Birds of Great Britain. Parts ix. and x. London: 1866. Imp. folio.

The two parts of this work published last year fully maintain the author's reputation.

GRANT, WILLIAM. Birds found in Malta and Gozo, with their English, Maltese, and Latin Names. La Valletta: 1866. 12mo, pp. 80.

A mere list of the names of 308 species, with marks to indicate their comparative abundance or rarity.

HARTING, JAMES EDMUND. The Birds of Middlesex. A contribution to the Natural History of the County. London: 1866. Post 8vo, pp. 284.

Two hundred and twenty-five species are stated to have been observed in the county; and remarks on their habits, times, and localities of occurrences are given, as well as the musical expression of their call-notes. Without containing any very novel information, this little work possesses considerable interest, and is most conscientiously executed. (Cf. Ibis, 1867, pp. 123-125.)

HINTZ I., W. Ornithologischer Jahresbericht u. s. w. in der Umgegend von Schlosskämpfen bei Cöslin in Pommern. Journ. für Orn. 1866, pp. 91-105, 145-158.

In continuation of the reports before noticed (Zool. Record, i. p. 43, ii. p. 64). No species hitherto not observed to breed in the district is mentioned.

HOLTZ, LUDWIG. Die Beutvögel der Insel Gottland. Journ. für Orn. 1866, pp. 289-304, 361-385. [See "Oology."]

HOMER, A. VON. Ueber das Vorkommen einiger, zum Theil seltener Vögel, bei Glogau in Nieder-Schlesien. Journ. für Orn. 1866, pp. 32-36.

The observations seem to be only of local interest.

LILFORD, [THOMAS LYTTLETON POWYS] Lord. Notes on the Ornithology of Spain. Ibis, 1866, pp. 173-187, 377-392, pl. x.

These articles contain much information on the little-known *ornis* of Spain, from the author's personal observation, he having revisited that country in the spring of 1865, though being obliged through illness to confine his researches on this occasion to the provinces of Old and New Castile. Having enjoyed unusual facilities for exploring some of the royal domains, he was able to investigate the breeding-habits of many very interesting species, among them *Cyanopica cookii*, *Oxylophus glandarius*, and *Aquila pennata*. One of the most important facts he records is the existence of *Tetrao urogallus* in Northern Spain.

MALMGREN, A. J. Zur Vogelfauna Spitzbergens. Journ. für Orn. 1865, pp. 385-400*.

This paper is a criticism on our own "Notes on the Birds of Spitsbergen" (Zool. Record, ii. p. 66), and it consequently would be very difficult for us to give an impartial abstract of it. We think, however, we may fairly say that most of the points on which the author differs from us are of minor importance; but we should prefer our readers judging for themselves to running the risk of unintentionally misrepresenting Dr. Malmgren, whose labours deserve the most careful consideration. The Spitzbergen *Stercorarius*, hitherto accounted *S. parasiticus*, is now considered specifically distinct and receives the name of *S. tephros*; and the common *Somateria* of the same region in like manner is called *S. thulensis*.

NEWMAN, EDWARD. A Dictionary of British Birds. Reprinted from Montagu's Ornithological Dictionary, and incorporating the additional species described by Selby; Yarrell, in all three editions; and in Natural-History Journals. London: 1866. 8vo, pp. 400.

The scope of this book is best explained by its title. As the

* Not published till 1866.

whole of Montagu's work is reprinted, the present volume naturally reproduces very much that is now known not to be true, and the corrections of such misstatements are not numerous. The additions, too, are of a somewhat arbitrary character, several species being left out which have as good a claim to admission as many that are included (*cf.* Zoologist, S. S. pp. 495-497), while the editor has omitted any reference to very many of the latest observations on the subject (*cf.* Zoologist, S. S. pp. 372-384; Ibis, 410-412).

NEWTON, ALFRED. Notes on the Zoology of Spitsbergen. Zoologist, S. S. pp. 196-206.

A reprint of the paper before noticed (Zool. Record, i. p. 44).

PROTEAU, —. Catalogue des Oiseaux observés dans l'arrondissement d'Autun pendant le cours des années 1844 à 1860. Mémoires d'Histoire Naturelle, tome i. pp. 251-277. Autun: 1865. (Publication de la Société Éduenne.) 8vo.

The list contains 179 species, but scarcely any information respecting them of more than local interest.

RIMROD, —. Reihenfolge der Rückkehr des grössten Theils unserer Sommervögel im Frühling nach zwanzigjähriger Beobachtung zu Quenstedt in der Grafschaft Mansfeld. Journ. für Orn. 1866, pp. 354-360.

Lists showing the dates of arrival of thirty-six species at the place above named. The observations extend from 1833 to 1852, both inclusive.

SALVADORI, TOMMASO. Katalog der Vögel Sardiniens, u. s. w. Journ. für Orn. 1865, p. 415*.

The conclusion of Dr. Bolle's translation, which we last year noticed (Zool. Record, ii. p. 67).

SAXBY, H. L. Ornithological Notes from Shetland. Zoologist, S. S. pp. 16-20, 61-67, 211-215, 288-293, 473-479.

A continuation of the series of papers before noticed (Zool. Record, i. p. 45, ii. p. 67), and of the same character.

SMITH, CECIL. List of Birds observed during a Six Weeks' Summer Visit to the Channel Islands, exclusive of Jersey. Zoologist, S. S. pp. 447-453.

Sixty-eight species are noticed.

SNELL, D. H. Eine Parallele zwischen der Vogelfauna des Taunus und der Wetterau. Zoolog. Garten, 1866, pp. 201-206.

This paper treats of the influence on the *ornis* of the two districts of the soil and flora.

STEVENSON, HENRY. The Birds of Norfolk, with remarks on their Habits, Migration, and Local Distribution. Vol. I. London: 1866. 8vo, pp. lxxii and 446.

* Not published till 1866.]

A most carefully elaborated work on that part of England which has probably the richest *ornis* (Zool. Record, i. p. 45). The introduction describes at some length the general features of the county, and the changes which have been produced in its avifauna of late years, chiefly through improved agricultural practice. This volume (extending to the end of *Gallinæ*) contains an account of 142 species, which, in their relation to the district, are very fully dwelt upon.

SUNDEVALL, C. J. Svenska Foglarna. Part XVIII. Stockholm : 1866. Oblong 4to.

We have only received one part of this work during the past twelvemonth. It contains half-sheets 53 to 56, and plates lxix. to lxxi. and lxxix.

TRISTRAM, H. B. On the Ornithology of Palestine. Part III., Ibis, 1866, pp. 59-88, pl. ii. ; Part IV., *op. cit.* pp. 280-292.

In continuation of the articles noticed last year (Zool. Record, ii. pp. 67, 68). Part III. treats of the *Corvidæ* and so-called "*Fissirostres*" of the country ; Part IV. of the "*Scansores*" and some of the denti-rostral *Passeres*, into which are introduced the *Alaudidæ*. The most remarkable fact mentioned, perhaps, is the identification of *Motacilla lugubris*, Temm. (nec *M. lugens* seu *lugubris*, Temm. & Schleg.), with *M. vidua*, Sundevall. *Caprimulgus tamaricis* forms the subject of the plate.

WILLEMOES-SUHM, W. VON. Die Raubvögel der Umgegend von Hamburg-Altona. Zoolog. Garten, 1866, pp. 182-186, 219-221.

Twenty-nine species occur in the district, of which seven are resident, five come to breed, eleven are winter visitants, and six are met with occasionally. The remarks upon them seem to contain no very novel information.

ETHIOPIAN REGION.

ANTINORI, ORAZIO. Beschreibung und Verzeichniss, u. s. w. Journ. für Orn. 1866, pp. 112-129, 191-208, 235-244.

A continuation of Dr. Hartmann's translation mentioned by us last year (Zool. Record, ii. p. 69), which is still incomplete.

BULGER, G. E. [See SCLATER, P. L.]

DOHRN, H. Synopsis of the Birds of Ilha do Principe, with some Remarks on their Habits, and Descriptions of New Species. Proc. Zool. Soc. 1866, pp. 324-332, pl. xxxiv.*

The *ornis* of this island, which is an intermediate link between Fernando Po and San Thomé, does not seem to have been previously examined, and proves to be interesting. Not a single bird of prey exists upon it, though they are abundant on the other two islands in the Bight of Benin. Of the thirty-four species noticed six are new. These are described by Dr. Hart-

* Cf. *infra* "KEULEMANS, J. G."

laub, and belong to the families *Meliphagidæ*, *Hirundinidæ*, *Timaliidæ* (?) (*Cuphopterus*, g. n.), *Fringillidæ*, and *Columbidæ*.

HARTLAUB, G. Zwei neue afrikanische Vögel. Journ. für Orn. 1866, pp. 36, 37. [See "TURDIDÆ."]

——. On a New Genus of African Birds. Ibis, 1866, pp. 139, 140, pl. vi. [See "MALURIDÆ."]

——. On a new genus and species of Birds from Madagascar. Proc. Zool. Soc. 1866, pp. 218, 219. [See "SYLVIDÆ."]

KEULEMANS, J. G. Opmerkingen over de Vogels van de Kaap-verdische eilanden en van Prins-eiland (Ilha do Principe) in de Bocht van Guinea gelegen. Nederlandsch Tijdschrift voor de Dierkunde, iii. pp. 363–401.

Of the Birds of the Cape Verde Islands twenty-five species are enumerated, and of those of Ilha do Principe thirty-nine, but some are not named with precision. The new species from the last locality, discovered by Dr. Dohrn [*vide supra*], are nearly all mentioned, and some further details of their habits are given.

POLLEN, FRANÇOIS. Description d'une espèce d'Epervier de Madagascar inconnue aux naturalistes. *Nisoides* [lege *Nisoides*] *moreli*. Bull. Soc. Sc. et Arts de la Réunion, 13 avril, 1866. *Idem*, Mém. Scient. pp. 59–63.

SCHLEGEL, H. List of the most remarkable species of Mammals and Birds collected by Messrs. Fr. Pollen and D. C. van Dam in Madagascar. Proc. Zool. Soc. 1866, pp. 419–426.

This title is hardly correct; for several of the species peculiar to one or other of the Mascarene islands are also mentioned. It is the forerunner of a more extensive work on the subject. One hundred and thirty-four species seem to have been obtained, of which three, belonging to the families *Cypselidæ*, *Pittidæ*, and *Ploceidæ*, are here named or described for the first time. A new generic division in *Muscicapidæ* is also indicated, but not characterized. A considerable number of supposed species are identified with others, the more important of which determinations are noticed in our special part. The whole paper is a valuable commentary on Dr. Hartlaub's well-known work, as well as on the other papers relating to the subject.

——. On some extinct Gigantic Birds of the Mascarene Islands. Ibis, 1866, pp. 146–168. Remarques sur quelques espèces éteintes d'oiseaux géantiques des îles Mascareignes. Ann. des Sci. Nat. Zoologie, 5^e sér. 1866, vi. pp. 25–49, pl. 1. figs. 1–3.

These papers are English and French translations of an article

in the 'Verslagen en Mededeelingen der K. Akademie van Wetenschappen' of Amsterdam for 1857, in which the author, on the evidence of Leguat and Du Bois, endeavours to prove the former existence of two large species of Birds, which he considers to have belonged to the *Rallidæ*, and named *Gallinula (Leguatia) gigantea* and *Porphyrio (Notornis?) cærulescens*. The French translator adds (p. 42, note) the interesting information that the journal kept in Réunion from 1669 to 1672, which had hitherto been only known by a MS. copy in the possession of the Zoological Society of London, without the author's name, was the work of one Du Bois, and was published in Paris in 1674.

SCLATER, P. L. Report on Birds collected at Windvogelberg, South Africa, by Captain G. E. BULGER. Proc. Zool. Soc. 1866, pp. 21-23.

The species, forty-four in number, were determined by Dr. Hartlaub: only one of them has proved to be new, *Hemipteryx immaculata*. To the list is prefixed Capt. Bulger's account of the locality where his specimens were collected.

INDIAN REGION.

BEAVAN, R. C. Extracts from a letter. Proc. Zool. Soc. 1866, pp. 2-4.

This paper contains a few zoological observations made on a trip from Moulmein to Zwagaben, of which most are ornithological.

——. Letter on the animals introduced into the Andaman Islands. Ibis, 1866, pp. 419, 420.

——*. Notes on some Birds of Ross Island. Ibis, 1866, pp. 220-222.

The island is one of the Andaman cluster, many of the species introduced are indicated.

BLYTH, E. The Ornithology of India.—A Commentary on Dr. Jerdon's 'Birds of India.' Ibis, 1866, pp. 225-258, 336-376.

The first of these articles contains a few generalizations, and then proceeds to consider the birds of prey mentioned in Dr. Jerdon's work, on which the author of the paper (himself one of the highest authorities on Indian Ornithology) remarks that little seems to be needed in the way of emendation. The second article treats of the remainder of the species noticed in the first volume of the 'Birds of India.' It would be utterly impossible to give, within any reasonable space, an abstract of Mr. Blyth's "Commentary;" for his extraordinary powers of reference and illustration are indulged without limit. No species appear to be described as absolutely new; but several are added

* *Errone typographico*, "Blair."

to the Indian fauna, to the students of which this series of articles (continued in 'The Ibis' for 1867) must necessarily prove a most valuable aid.

BULGER, G. E. List of Birds observed at Wellington, Neilgherry Hills, about 6000 feet above the level of the sea, during the months of April and May 1866. Proc. Zool. Soc. 1866, pp. 568-571.

Forty species are noticed.

GOULD, JOHN. The Birds of Asia. Part xviii. London: 1866. Imp. folio.

Many of the species here figured are, of course, not "Indian," but, in accordance with our former practice (Zool. Record, i. p. 50, and ii. p. 73), we here record the progress made in this magnificent work.

MARTENS, EDUARD VON. Zusammenstellung der bekannten philippinischen Vögel. Journ. für Orn. 1866, pp. 5-31.

A very useful compilation on the little-known ornithology of this group of islands. Though the Philippines have been visited by so many naturalists, including the author himself, no list of their birds has ever been published; consequently the only information respecting them has to be collected from the accounts of various voyages, and an examination of the specimens brought thence, which are to be found in sundry museums. The want of a list of Philippine birds is one that has long been felt, and Dr. von Marten's paper has laid an admirable foundation for future investigators. One hundred and ninety-two species are given by our learned colleague; but there can be little doubt many more remain to be discovered or identified with the descriptions of old writers. Five undescribed species are named, all of which were collected by a recent traveller, Herr F. Jagor of Berlin, and are now in the museum of that capital. They are called *Strix amaurota*, *Gerygone modesta*, *Cisticola semirufa*, *Munia jagori*, and *Uroloncha jagori*; and it is to be hoped that any other ornithologist describing them will retain these specific appellations.

NORGATE, W. A List of Birds observed at Sealkote in the Punjab. Zoologist, S. S. pp. 285-288.

A nominal list of 139 species observed by the author, most of which are distinguished by scientific names. No notes on their habits are appended.

STOLICZKA, F. Einige Betrachtungen über den Charakter der Flora und Fauna in der Umgebung von Chini, Provinz Bisahir, im nordwestlichen Himalaya-Gebirge. Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1866, pp. 848-878.

The ornithological portion of this paper is at pp. 860-874. No new species are described, but several little-known ones are mentioned. (Cf. Ibis, 1866, pp. 412, 413.)

SWINHÖE, R. Letter on Formosan Ornithology. *Ibis*, 1866, pp. 121-123.

——. A voice on Ornithology from Formosa. *Op. cit.* pp. 129-138, pl. v.

This contains comments on a paper of Mr. Blyth's (*Zool. Record*, ii. pp. 72, 73), and a very great variety of observations on different Formosan or Chinese birds. *Turdus albiceps*, Swinh., forms the subject of the plate.

——. Ornithological Notes from Formosa. *Op. cit.* pp. 292-316, 392-406, pls. ix., xi.

After a few comments on various statements in preceding numbers of 'The Ibis,' the author in the first of these articles proceeds to notice a collection of Birds from the Tamsuy Mountains, which contained a few species he had not hitherto met with in the island, and then describes in great detail six apparently new ones. (See *Fringillidæ*, *Falconidæ*, *Paridæ*, *Timaliidæ*, and *Columbidæ*.) The plates represent *Suthora bulomachus*, sp. n., and *Cyornis vivida*. In the second article Mr. Swinhoe continues his multifarious notes, in the course of which he describes four more new species (see *Sylviidæ*, *Strigidæ*, and *Anatidæ*).

WALDEN, ARTHUR [HAY] Viscount. Notes on Birds collected in Tenasserim and in the Andaman Islands. *Proc. Zool. Soc.* 1866, pp. 537-556.

Of the former, thirty-five species (one of which, belonging to *Sylviidæ*, is new), and of the latter, six species are noticed at considerable length, great attention being paid to their synonymy and bibliography. The collections were formed by Capt. Beavan.

AUSTRALIAN REGION.

BULLER, WALTER. Essay on the Ornithology of New Zealand. Dunedin : 1865. 8vo, pp. 20.

This is one of the prize-essays of the New Zealand Exhibition of 1865, and is printed by the Commissioners. Its chief object seems to be that of giving unscientific persons a general idea of the peculiarities of the New Zealand *ornis*, and in this it succeeds well. Nine species from some one or other of the group of islands are indicated as new; and of these *Anthornis auriocula*, *Gerygone assimilis*, *Mimus* [?] *carunculatus*, *Creadion cinereum*, *Nestor superbus*, *Rallus featherstonii*, and *Podiceps hectori* are described. *Strix haasti* and an unnamed *Lestris* are also mentioned, but not described. The number of New Zealand birds is put at 133 : besides the flightless species, several others seem to be vanishing; among these *Coturnix novæ-zealandiæ* is especially mentioned. (Cf. *Ibis*, 1867, pp. 131-133.)

DIGGLES, SYLVESTER. The Ornithology of Australia. Queensland. Imp. 4to. Parts I.-X., pls.

We do not know when the publication of this work was com-

menced ; but ten parts, which are said to appear monthly, have reached England. Each contains six plates, very fairly executed, and a small portion of accompanying letterpress. The species figured will be found named in the special part.

GOULD, JOHN. Additions to the List of the Avifauna of Australia, with descriptions of Three New Species. Proc. Zool. Soc. 1866, pp. 217, 218.

The new species belong to *Meliphagidæ*, *Muscicapidæ*, and *Sylviidæ*; the additions are *Rallina tricolor* and *Hydrochelidon leucoptera*.

GRÆFFE, ED. Notizen über die Fauna der Viti-Inseln. Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1866, pp. 585-596.

A list of 46 species of birds found in the (Feejee) Islands is given at pp. 595, 596. No remarks are made upon them.

HARTLAUB, G. On Five New Species of Birds from the Feejee Islands. Ibis, 1866, pp. 171-173. [See "*CUCULIDÆ*," "*AMPELIDÆ*," "*LANIIDÆ*," and "*RALLIDÆ*."]]

RAMSAY, EDWARD P. Notes on the most frequent Foster-parents of the Cuckoos of Australia. Proc. Zool. Soc. 1866, pp. 571-577.

This paper contains an account of the breeding of three species of *Acanthiza*, two of *Geobastileus*, and one of *Gerygone*.

——. Additional List of Birds from Port Denison. Ibis, 1866, pp. 325-336.

The number of species is raised from 45 (Zool. Record, ii. p. 76) to 138. The locality appears to be situated at about the southern limit of the North Australian birds and the northern limit of those of New South Wales.

——. On Australian Oology. [See "*OLOGY*."]]

SCHLEGEL, H. De Vogels van Nederlandsch Indië, beschreven en afgebeeld. Monographie 3, Valkvogels (*Accipitres*). Haarlem : 1866. 4to, pp. 84, tabb. xxviii. figg. 109.

This monograph of the *Accipitres* of the Dutch Indies is in continuation of the series we noticed last year (Zool. Record, ii. p. 76) and is on exactly the same plan. The figures, of which a list will be found in the special part, are beautifully drawn.

WALLACE, A. R. Ueber die Tauben des malayischen Archipels. Journ. für Orn. 1866, pp. 269-285.

A German translation, by Dr. E. von Martens, of the paper (Ibis, 1865, pp. 365-400) noticed last year (Zool. Record, ii. pp. 76-78), with the omissions, however, of nearly all the bibliographical references, the author's field-notes, and the geographical tables.

NEARCTIC REGION.

BAIRD, S. F. Review of American Birds in the Museum of the Smithsonian Institution. Part I. (continued). North

and Middle America. Washington: 1866. Royal 8vo, pp. 321-450.

The portion of this work which appeared in 1866 comprises the *Vireonide*, *Ampelide*, and *Laniide*. These families are treated in the same minute manner as the others, of which we have spoken in our two preceding volumes (Zool. Record, i. p. 55, ii. p. 79); but a new and very remarkable feature is introduced by the author's giving outline figures of the bills, feet, wings, and tails of many of the species; and as these illustrations are printed with the text, after the manner of woodcuts, they are most convenient for reference. The new species described (five in number) are noticed in the special part of this 'Record,' under the names of the families above mentioned.

— The Distribution and Migrations of North American Birds. Am. Journ. Sc. and Arts, xli. (Jan., March, and May, 1866).

A very admirable paper, but one of which it is not easy to give an abstract in a small space. To the six great regions originally traced out by Mr. Sclater, and adopted in this 'Record,' the author adds a seventh, the West-Indian, which he separates from the Neotropical, on account of the large proportion of genera peculiar to that Archipelago. The ornithological provinces of North America consist of two great divisions meeting about long. 100° W., the western of which, divisible again into two, are more closely related to each other than to the eastern. These three great provinces he terms the Western, Middle, and Eastern, and they are those (1) of the Pacific slope, (2) of the Rocky Mountains and the adjacent plains, and (3) of the fertile plains and country generally east of the Missouri. A northern, or sub-arctic, fauna mixes with and melts into the three, extending far to the south (even into Mexico) along the Rocky Mountains. The Middle and Eastern provinces have each a southern subdivision. Northward the Eastern province extends more and more westward across the Rocky Mountains towards the Yukon.—The winter quarters of the North-American birds are next considered. Comparatively few species visit the West Indies; a much larger proportion reach Mexico and Guatemala; but the greatest number seem to crowd into Florida, Georgia, and other southern States. The variation of species according to locality is then noticed. This is especially to be remarked in their size—the more northern individuals being the larger, the more southern the smaller. This difference is as strongly marked in species constantly resident as in those which migrate over great distances; and the development extends to all parts of the body. Lat. 40° N. may be assumed as an average line on either side of which this variation is very evident. Several of the birds also of the Middle and Western provinces have longer tails than the same

or allied species in the Eastern. Again, specimens from the Pacific coast are apt to be darker in colour than those from the interior. Birds of any two representative species from the frontiers of their respective ranges present a combination of characters explicable only on the supposition of hybridity. Notable instances of this are found in the genera *Colaptes*, *Cyanura*, *Junco*, and *Helminthophaga*.—Prof. Baird then proceeds to treat of the eastward movement of American birds, and its influence on the *ornis* of Greenland and Europe, and *vice versa*. European land-birds reach Greenland by way of Iceland and the Færoes; those found on the continent of North America reach it by autumnal movement from Greenland in company with strictly North American species. Most American birds which reach Europe have occurred in England, which they make, not by way of Iceland, but by direct voyage, aided by the winds. The migrations of birds are generally more or less in a north and south direction, influenced materially by rivers, mountains, forests, and the like. While in spring they usually proceed to the very spot of their birth by a direct line, their return in autumn is often by a different route. The vernal movement, too, is performed much more rapidly and with fewer halts by the way than the autumnal. The nature of the migratory impulse is not discussed.—It must be observed that the results which we have here set down as arrived at by the author are reached only after a close examination of the very large and carefully collected series of specimens in the Smithsonian Institution and the collation of numerous recorded facts. Many comparative lists of species throwing light on the subject are also introduced. Some extracts from this paper are given in *Ann. & Mag. N. H.* 1866, xviii. pp. 141–144; and the whole is reprinted, ‘*Ibis*,’ 1867, pp. 257–293; while a German translation is contained ‘*Journ. für Orn.*’ 1866, pp. 244–269, 338–352.

COUES, ELLIOTT. From Arizona to the Pacific. *Ibis*, 1866, pp. 259–275.

Fort Whipple in Arizona possesses much in common with the coast of Southern California, though the two are in many points strikingly contrasted. The author had a fine opportunity of comparing the *ornis* of these districts in passing from one to the other, a distance of 500 miles. Hardly any change was noticed until the Colorado was nearly reached; here the author had the opportunity of determining many of the water-birds found in the district. Further westward lies the Colorado Desert, where hardly a bird was seen until the “sink” of the Mojave was attained, which seems to be a meeting-point of several eastern and western species. Beyond this lie the San Bernardino Mountains, whence to the coast the country is an open and flat plain, the resort of a very distinct set of birds. The paper,

which is one of much interest, concludes with an account of the species seen in the Bay of San Pedro.

COUES, ELLIOTT. List of the Birds of Fort Whipple, Arizona, &c. Proc. Acad. Philad. 1866, pp. 39–100*. (Separately published as 'Prodrome of a work on the Ornithology of Arizona.' Philadelphia: 1866. 8vo, pp. 64.)

The list is preceded by a brief sketch of the physical features of the territory and of the amount of information respecting its ornithology published prior to the author's sojourn there. The number of birds noticed as belonging to the district is 244 (one, *Certhiola flaveola*, having been introduced in a MS. note, as our copy informs us, by mistake), of which 155 occurred at Fort Whipple. The details appended are not very numerous, such being reserved for future elaboration; but, as in all Dr. Coues's papers, they are always to the point. Three new genera are established—*Micrathene* (*Strigidae*), *Asyndesmus* (*Picidae*), and *Podasocys* (*Charadriidae*); and four species are described as new—one belonging to the family *Tyrannidae*, the remainder to *Vireonidae*. (Cf. 'Ibis,' 1867, pp. 130, 131.)

DOWNS, A. On the Land-Birds of Nova Scotia. Proc. & Trans. Nova Scotian Inst. Nat. Sci. vol. i. part iv. pp. 130–136.

A continuation of the paper before noticed (Zool. Record, ii. p. 80), but, like that, containing information only of local interest.

DRESSER, H. E. Notes on the Birds of Southern Texas. Ibis, 1866, pp. 23–46.

The concluding portion of the paper noticed last year (Zool. Record, ii. p. 80). Altogether the author enumerates 272 species as occurring in the district, and of nearly all of them records his personal observations. One of the most curious facts recorded is the domestication of *Ortalia macalli* and its interbreeding with domestic poultry.

ELLIOT, D. G. The Birds of North America. Parts I. and II. New York: 1866. Imp. fol.

This work is to contain life-sized figures of all the Birds of North America not figured by Audubon. The species figured in the first part are *Haliaetus albicilla* (Greenland), *Campylorhynchus affinis*, *Colymbus adamsi*, *Cardinalis igneus*, and *Ombria psittacula*. In the second appear *Cathartes burrovianus*, *Sphyrapicus thyroideus*, *Bucephala islandica*, *Podasocys montanus*, and *Chen alatus*. (Cf. Ibis, 1866, p. 417.)

KING, W. Ross. The Sportsman and Naturalist in Canada. With coloured plates. London: 1866. Royal 8vo, pp. 334.

* The 'Proceedings' of the Philadelphia Academy for 1866 have not been received in England. We are therefore unable to furnish the particulars of the pagination of this paper, for a separately printed copy of which we are indebted to the author's kind consideration. [See footnote, p. 45.]

This volume contains notices of such birds of the country as are of most interest to the sportsman, but written with more attention to scientific accuracy than is usual in works of this character, though no information of any great value to the naturalist is given. Those of the plates represent species of *Gallina*. (Cf. Ibis, 1867, pp. 125, 126.)

LAWRENCE, G. N. Catalogue of Birds observed on New York, Long and Staten Islands, and the adjacent parts of New Jersey. Ann. Lyc. N. H. New York, 1866, pp. 279-300.

Three hundred and twenty-seven species are mentioned, among them the European *Passer domesticus* and *Scolopax rusticola*. The first has been introduced purposely.

LORD, JOHN KEAST. The Naturalist in Vancouver Island and British Columbia. London: 1866. 2 vols. small 8vo, pp. 358 and 375.

The author was Naturalist to the British North-American Boundary Commission, and therefore had good opportunities of studying the habits of various animals about which little has hitherto been known. Not much that is new, however, respecting ornithology is recorded in the work. The 'Appendix' contains (ii. pp. 291-301) a list of the 226 species of birds collected by Mr. Lord, in which none of any remarkable interest occur. *Pediocates phasianellus* and *Selasphorus rufus* form the subjects of two bad woodcuts. The work is very carelessly printed, and has no index. (Cf. Ibis, 1867, p. 126.)

MÜLLER, J. W. von. Reisen in den Vereinigten Staaten, Canada und Mexico. 3 vols.* Leipzig: 1864, 1865. 3 vols. Royal 8vo.

We last year noticed (Zool. Record, ii. p. 80) a separately printed copy of a list of Mexican Birds. This copy seems to have been only a proof; for several alterations appear to have been made in the list as now published (op. cit. iii. pp. 551-594). Six hundred and eleven species only are included, of which four, *Trogon erythronotus*, *Tachyphonus schlagintweiti*, *Melospiza pectoralis*, and *Aimophila* (lege *Hæmophila*) *tolteca* are described as new.

WEIZ, SAMUEL. List of Vertebrates observed at Okkak, Labrador. Proc. Boston Soc. N.H. x. pp. 264-277.

The birds enumerated (pp. 267-269) are about eighty-five in number, of which twenty-five are said to breed in the district. Their Eskimaux names are added, but no further remarks are made on them.

NEOTROPICAL REGION.

BRYANT, HENRY. A List of Birds from Porto Rico, presented to the Smithsonian Institution. Proc. Boston Soc. N. H. x. pp. 248-257. Journ. für Orn. 1866, pp. 181-191.

The birds were presented by Messrs. Swift and Latimer. Three appear to be described as new, belonging to the genera *Tyrannus*, *Todus*, and *Tanagra* (*Spindalis*). Local varieties of species of *Mimus*, *Certhiola*, *Fringilla* (*Phonipara*), *Icterus*, and

* The third volume is also published separately as 'Beiträge zur Geschichte, Statistik und Zoologie von Mexico.'

Sawrothera are also characterized. Upwards of forty species are noticed, but some only mentioned by name. (Cf. Ibis, 1867, pp. 129, 130.)

GUNDLACH, JUAN. *Revista y Catálogo de las Aves cubanas. Repert. fisico-nat. de Cuba*, i. pp. 165–180 (Oct. '65), 221–242 (Nov., Dec. '65), 281–302 (Jan., Feb. '66), 347–363 (Apr., June '66), 386–403 (Aug., Sept. '66).

This series of papers is very important, containing as it does a complete list of the Birds of Cuba critically drawn up by so trustworthy an authority. The first article treats chiefly of the general features of the Cuban ornithology. Of 257 species found in a wild state in the island, 40 are peculiar to it; and 119, or more than half the remainder, are common to North America, but the greater number of them are autumnal visitants. These and other similar details relating to geographical distribution are very clearly set forth in a tabular form. The rest of the series consists of a catalogue, with a few synonyms, the local names, and short particulars of habits and the like. To the last article are appended four shorter lists, showing the species naturalized, escaped from confinement, doubtfully and erroneously enrolled as Cuban. No new species are described in these papers. Extracts from a letter of Dr. Gundlach relating to Cuban ornithology are also printed in *Journ. f. Orn.* 1866, pp. 352–354.

GUYON, —. *Des animaux disparus de la Martinique et de la Guadeloupe depuis notre établissement dans ces îles. Comptes Rendus*, lxi. (8 Oct. 1866), pp. 589–593.

The birds mentioned as extinct are two "Aras," two "Perroquets," and two "Perruches;" but no scientific names are assigned to them.

LANDBECK, L. (See PHILIPPI, R.A.)

LAWRENCE, G. N. *Characters of seven new species of Birds from Central and South America. Ann. Lyc. N. H. New York*, 1866, pp.

They belong to the families *Trochilidae*, *Formicariidae*, *Dendrocolaptidae*, *Troglodytidae*, and *Columbidae*.

LIÉOTAUD, A. *Oiseaux de l'île de la Trinidad (Antilles). Port d'Espagne [Trinidad]*: 1866. 8vo, pp. xx, 560, iv.

A very complete account of the ornithology of the island above named, when the difficulties with which the author (working without access to good libraries or museums) had to contend are taken into consideration. Two hundred and ninety-seven species are included, three of which are added in an Appendix. Each species is fully described, and a few observations made on its habits. Four are described as new, *Cymindis pucherani*, *Dendrocolaptes altirostris*, *Empidonax cabanisi*, and *Tachyphonus albispicularis*. The avifauna of Trinidad is purely South-American, as distinguished from that of the West-Indian

islands proper, 274 species being peculiar to Trinidad and South America. (Cf. *Ibis*, 1867, pp. 104-108.)

LEYBOLD, FRIEDRICH. Beschreibung von vier neuen Vogelarten aus der Argentinischen Provinz Mendoza. *Journ. für Orn.* 1865, pp. 401-406.

The birds were obtained on a journey to Mendoza over the Cordillera, and belong to the families *Formicariidae*, *Fringillidae*, and *Tyrannidae*. They are described by Herr L. Landbeck.

PHILIPPI, R. A., and LANDBECK, L. Beiträge zur Fauna Chiles. *Archiv für Naturgeschichte*, 1866, ii. pp. 121-132.

Four species are described as new—one, *Pteroptochus castaneus*, having been previously described by the same authors (*Zool. Record*, ii. p. 81). The others are a *Synallaxis*, *Numenius*, and a *Sterna*.

SALVIN, OSBERT. Descriptions of Eight Species of Birds from Veragua. *Proc. Zool. Soc.* 1866, pp. 67-76, pls. vii., viii.

The species belong to the families *Trogonidae*, *Formicariidae*, *Dendrocolaptidae*, *Turdidae*, *Troglodytidae*, and *Tanagridae*. In most cases careful diagnoses of the other species of the same genus, drawn up with Mr. Sclater's assistance, are added. The plates represent *Formicarius rufipectus* and *Euphonia rufivertex*.

SALVIN, OSBERT. A further Contribution to the Ornithology of Guatemala. *Ibis*, 1866, pp. 188-206.

This contains a list of species not included in the papers published by the author and Mr. Sclater in former volumes of 'The Ibis,' together with a series of corrections, both as to nomenclature and distribution. Six hundred and twelve species, of which eighty-one are added in the present paper, are now known from the district included in the limits originally laid down by these two accomplished naturalists (*Ibis*, 1859, p. 1); and Mr. Salvin enters into a few particulars of the various journeys of exploration made by himself, his collectors, or friends. The corrections chiefly refer to the papers contained in 'The Ibis' for 1859 and 1860. *Chamaespiza torquata*, Scl. & Salv. (*Ibis*, 1860, p. 274), is *Pyrgisoma leucote*.

SALVIN, O. (See SCLATER, P. L.)

SCLATER, P. L. On the Birds of the vicinity of Lima, Peru. With Notes on their Habits, by Professor W. NATION. Part I. *Proc. Zool. Soc.* 1866, pp. 96-100, pl. xi.

In this Part twenty-three species are noticed, of which two, belonging to the families *Dendrocolaptidae* and *Tyrannidae*, are new. Prof. Nation's notes are very brief.

——. On a New Species of the Genus *Accipiter* from New Granada. *Ibid.* pp. 302-304. [*A. ventralis*.]

——. Descriptions of Six New Species of American *Oscines*. *Proc. Zool. Soc.* 1866, pp. 320-324.

They are all from localities in the Neotropical Region, and belong to the families *Cerebidae* (genus novum *Spodiornis*), *Vireonidae*, *Turdidae*, and *Troglodytidae*.

SCLATER, P. L., and SALVIN, O. Catalogue of Birds collected by Mr. E. Bartlett on the River Ucayali, Eastern Peru, with Notes and Descriptions. *Ibid.* pp. 175-201.

The specimens contained in the collection amounted to about 700, representing 252 species, and were procured on the river named between Nauta and Cashaboya; and, as the only work giving any connected account of the ornithology of this district is Tschudi's 'Fauna Peruana,' a great addition to our knowledge of its avifauna is made by Mr. Bartlett's labours, which are clearly set forth by the authors. Eleven species prove to be new, belonging to the families *Trochilidae*, *Formicariidae*, *Dendrocolaptidae*, *Cotingidae* (genus novum), *Tyrannidae*, and *Fringillidae*, which will all be found noticed in our special part.

—, —. On some additions to the Catalogue of Birds collected by Mr. E. Bartlett on the River Ucayali. *Tom. cit.* pp. 566, 567.

Twenty species in addition to those noticed in the former list are noticed. None are described as new.

ANATOMY AND PHYSIOLOGY.

ALTUM, B. Ueber späte Bruten. *Journ. für Orn.* 1866, pp. 107-111.

The number of eggs in late broods is almost always less than in the first, and the nests are more slightly built; parental affection likewise diminishes, and the old birds feed the young less frequently. These last also are weaker, and the proportion of females among them is greater.

COQUEREL, C. (See GERVAIS, P.)

DIECK, R. De Sterno Avium. *Halis Saxonum*: [1865]. 8vo, pp. 31.

An inaugural dissertation at the author's graduating in the University of Halle. One of the theses he lays down is, that the sternum is the best character for defining the genus. His researches are based upon the examination of this part in 115 species, chiefly *Accipitres* and *Passeres*. His use of anatomical terms is in several respects very different from that which commonly obtains. (*Cf. Ibis*, 1867, pp. 246, 247.)

DROSIER, W. H. On the Functions of Air-Cells and the Mode of Respiration in Birds. *Ann. & Mag. Nat. Hist.* 3rd ser. 1866, xvii. pp. 313-316.

This is the abstract of a paper read before the Cambridge Philosophical Society, 12th Feb. 1866. After mentioning the facts and theories which have been brought forward to account for the air-cells, the author proceeds to show that it is impossible for birds to gain any real advantage from the rarification
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of the air in those cavities, as the lessening of weight from that cause is almost inappreciable; nor are these organs supplementary lungs, as is proved by the paucity of the capillaries on their walls. The lungs of birds being comparatively small in size, and possessing little elasticity, the cells act, in the author's opinion, the part of air-reservoirs, and by the alternate contraction and expansion of their walls a current of air is kept playing continually over the pulmonary capillaries, so that the act of respiration is principally performed by these cells, while the lungs only take the passive function of arterialization. The common inspiratory muscles are regarded as free to act whether the pectorals are in action or not—a fact thought by Hunter to be impossible. This was explained by a model, and also treated of mathematically. Air is passed through the bones of birds to prevent the moisture secreted by the endosteum from collecting and causing increase of weight.

GERVAIS, P., et COQUEREL, C. Mémoire sur le Droule, à propos d'os de cet oiseau récemment découverts à l'île Maurice.

(See special part, under DIDIDÆ.)

GIEBEL, C. Zur Anatomie der Spechte. Zeitschr. gesamt. Naturwiss. xxvii. pp. 477–485.

The manuscript observations of Nitzsch on *Picus major*, *P. medius*, *P. minor*, *P. martius*, and *P. viridis*.

——. Die Wirbelzahlen am Vogelskelet. *Op. cit.* xxviii. pp. 20–29.

This paper contains a list showing the number of vertebræ in 451 species, and noticing when this is inconstant, as occasionally is the case so far as observed.

——. Ueber einige Nebenknochen am Vogelskelet. *Tom. cit.* pp. 29–39.

——. Zur Anatomie des Lämmergeiers. *Tom. cit.* pp. 149–158.

From a manuscript of Nitzsch's, descriptive of the wing-muscles.

GOULD, J. Exhibition of Specimens of the trachea of *Manucodia gouldi*, which is of very remarkable form and structure. Proc. Zool. Soc. 1866, p. 201.

JÄCKEL, A. J. Ueber Schnabel-Missbildungen. Zoolog. Garten, 1866, pp. 335–339.

The bearings which the form of the bill in *Loxia* has upon the question are considered.

KOSTER, W. Remarque sur la signification du jaune de l'œuf des oiseaux comparé avec l'ovule des mammifères. Archives Néerlandaises, 1866, pp. 472–474.

MEYER, R. Ein Haushuhn mit Hahnengefieder. Zoolog. Garten, 1866, pp. 167–170.

A woodcut of this not uncommon abnormality is given.

MILNE-EDWARDS, A. Remarques sur les ossements de Droue (*Didus ineptus*) nouvellement recueillis à l'isle Maurice.

(See special part, under DIDIDÆ.)

— Observations sur les caractères ostéologiques des principaux groupes de Psittacidéés pour servir à la détermination des affinités naturelles du *Psittacus mauritianus*.

(See special part, under PSITTACI.)

NEUBERT, W. Ueber Schnabelmissbildungen. Zoolog. Garten, 1866, pp. 247-249.

A curious case of malformation of the mandible in *Melopsittacus undulatus* is illustrated by a figure.

OWEN, RICHARD. On the Anatomy of Vertebrates. Vol. II. Birds and Mammals. London: 1866. 8vo, pp. 1-265.

The part of this volume which we have here to notice is founded almost entirely upon the article "Aves" which the author wrote for Todd's 'Cyclopædia of Anatomy,' published in 1833, with, of course, many additions, which the advance of knowledge has rendered necessary. This long-expected work supplies a very great void, and, without doubt, has no rival. It must, however, be confessed that the systematic ornithologist will not receive as much help from it as he might be disposed to anticipate. The class *Aves* is divided into seven orders; but these are not defined anatomically, nor, indeed, are the characters drawn from external features always very precise: thus the definition of *Natatores* would include the Avocet, and that of *Grallatores* the Flamingo. Prof. Owen's classification is as follows:—

Order I. NATATORES. Sample families: (1) *Brevipennatæ*, (2) *Longipennatæ*, (3) *Totipalmatæ*, (4) *Lamellirostratæ*.

Order II. GRALLATORES. Sample families: (1) *Macroductyli*, (2) *Cultrirostris*, (3) *Longirostris*, (4) *Pressirostris*.

Order III. RASORES { Suborder *Gallinacei* or *Clamatores*.
" *Columbacei* or *Genitores*.

Order IV. CANTORES. Sample families: (1) *Dentirostris*, (2) *Conirostris*, (3) *Tenuirostris*, (4) *Fissirostris*.

Order V. VOLITORES. Sample families: (1) *Cypselidæ*, (2) *Trochilidæ*, (3) *Caprimulgidæ*, (4) *Trogonidæ*, (5) *Prionitidæ*, (6) *Meropidæ*, (7) *Galbulidæ*, (8) *Coraciadæ*, (9) *Capitonidæ*, (10) *Alcedinidæ*, (11) *Bucerotidæ*.

Order VI. SCANSORES. Sample families: (1) *Rhamphastidæ*, (2) *Bucconidæ*, (3) *Cuculidæ*, (4) *Picidæ*, (5) *Musophagidæ*, (6) *Coliidæ*, (7) *Psittacidæ*.

Order VII. RAPTORES. Sample families: (1) *Nocturnes*, (2) *Diurnes*.

The order CURSORES, which was formerly adopted by the

author (and from its frequent mention in the present work appears to a certain extent still to be recognized) is stated not to be a natural order; and the forms previously assigned to it are variously relegated—*Notornis* to the Coots, *Struthio* to the Bustards, *Didus* to the Doves, while *Apteryx*, *Dinornis*, and *Palapteryx* are said to bear affinity to the Megapodes. Nevertheless some of these genera find places in the author's systematic list; nor is any suggestion made as to the position of *Archæopteryx*.

But it is in the descriptive portion of this treatise that Prof. Owen's powers are manifested. The Osseous, Muscular, Nervous, and other systems have each a chapter devoted to them, and are treated as fully as the limits allow. Respecting this (the most important) portion of the book, however, we are precluded from entering into details. The illustrations, which are mostly the old woodcuts of the 'Cyclopædia' introduced into the letterpress, are very numerous and judiciously chosen, but not particularly well executed.

(Cf. *Ibis*, 1866, pp. 408, 409; *Journ. Anat. and Physiol.* no. 1. pp. 139, 140.)

OWEN, RICHARD. Memoir on the Dodo (*Didus ineptus*, Linn.). With an Historical Introduction by the late WILLIAM JOHN BRODERIP.

(See special part, under DODÆ.)

——. Evidence of a Species, perhaps extinct, of large Parrot (*Psittacus mauritianus*, Owen), contemporary with the Dodo in the Island of Mauritius.

(See special part, under PSITTACI.)

PARKER, W. K. On the Structure and Development of the Skull in the Ostrich Tribe. *Phil. Trans.* 1866, pp. 113–183, pls. vii.–xv.

This is the first of a series of papers on the morphology of the vertebrate skull; and the Ostrich tribe is chosen partly because of the mid position held by those birds among Vertebrates, and partly because of their generalized character. The development of the various bones composing the skull is most carefully traced in *Struthio*, *Rhea*, *Dromæus*, and *Casuarinus*, from examinations of very young examples; and some valuable remarks are made on the skull of the adult *Dinornis*. *D. casuarinus*, Owen, is said to be a *Notornis*. *Casuarinus* is shown to present most unmistakeable mammalian characters, especially in its inferior turbinals and post-temporals. The structure of the skull in *Tinamus* and *Psophia* is also described; and that of the first is considered by the author to be not only perfectly Struthious (*Zool. Record*, i. p. 59), but also more nearly related to the Lacertian Reptiles than are the *Struthiones* and higher groups of birds. Mr. Parker is convinced of the entire distinctness of the

splint-system and the true endoskeleton, as well as of the great importance of embryological researches.

SCLATER, P. L. Notes on the American *Caprimulgidæ*. Proc. Zool. Soc. 1866, pp. 123-145.

In illustration of the arrangement of the group proposed by the author in this valuable paper, which is fully treated of in the special part of our Record, the phalangeal series in *Antrostomus*, *Nyctidromus*, *Steatornis*, *Nyctibius*, and *Podargus* are figured (pp. 124, 125), as well as the sterna of *Caprimulgus*, *Nyctibius*, and *Podargus* (p. 126).

TEGETMEIER, W. B. The Poultry Book. London: 1866. . Imp. 4to. [In course of publication.]

No. VI. (for June) of this work contains (pp. 131-133) a very curious account of the assumption of female plumage by a Game Cock, whose reproductive powers were in no degree affected thereby. A woodcut of this rare abnormality is given.

WILLEMOES-SUHM, R. VON. Brütende Elsteralbinos. Zoolog. Garten, 1866, pp. 76, 77.

The circumstance of a pair of albino *Pica europæa* breeding and bringing up their young is recorded, but at third-hand evidence.

PTERYLOLOGY.

FATIO, VICTOR. Des diverses modifications dans les formes et la coloration des plumes. Mém. Soc. de Phys. & d'Hist. Nat. de Genève, xviii. pp. 249-308, pls. i.-iii. Bull. Soc. Orn. Suisse, 1866, pp. 94-98. (Translated from Biblioth. Univers. March 25, 1866, pp. 244-254). Ann. & Mag. Nat. Hist. 1866, xvii. pp. 361-367.

This paper gives only the results of the author's investigations into this difficult subject. He defines a feather as consisting (1) of a stalk or primary axis, on the sides of which are arranged (2) barbs or secondary axes, having implanted upon them (3) numerous barbules or tertiary axes, beset by (4) small lateral hooklets or "quaternary" axes. Feathers are divided into two groups, in accordance with differences in their pigmentation,—the "optical," which furnish a brown pigment, and the "ordinary," containing variously coloured pigments; to these, as laid down by Bogdanow (Rev. Zool. 1858, pp. 180, 181), M. Fatio adds two subdivisions,—"mixed" feathers dependent on the "ordinary" ones, and "enamelled," on the "optical;" their chief distinctive characters are furnished by the comparative distribution of the cortical substance, combined with the different pigmentation. On the observation of these four divisions are founded the following general laws:—

- (1) Of two successive axes, one is always developed at the expense of the other.

(2) In ordinary feathers the secondary axis predominates over the tertiary.

(3) In optical feathers the tertiary axis predominates over the secondary.

a. Mixed feathers present a mean condition.

b. Enamelled feathers are optical in their pigmentation and ordinary in their development.

FRAUENFELD, GEORG VON. Ueber Farbenabänderungen von Vögeln in der Sammlung des Herrn Jul. Finger. Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1866, pp. 417-420.

An enumeration of a considerable number of albino or albescent birds, with a few remarks upon them.

TSCHUSI, VICTOR VON. Beiträge zur Farbenveränderung der Vögel in Weiss und Schwarz. Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1866, pp. 223, 224.

Some not very important additions to the instances recounted by Herr von Pelzeln which we noticed last year (Zool. Record, ii. p. 88).

NEOSSOLOGY.

BARTLETT, A. D. Notes on the Breeding of several Species of Birds in the Society's Gardens during the year 1865. Proc. Zool. Soc. 1866, pp. 76-79.

The species noticed are *Eurypyga helias* and *Pterocles alchata*, the young of both being figured, besides *Calanus nicobarica*, *Guira piririgua*, and *Ibis rubra*. Thirteen other birds which hatched or laid eggs in the Gardens are also mentioned.

GOULD, J. The Birds of Great Britain. London: 1866.

Part IX. of this work contains figures of the young of *Lobipes hyperboreus*, and Part X. of those of *Bubo maximus*, *Scolopax rusticola*, and *Alca torda*.

MARCHAND, ALB. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1866.

The species represented during the past year are :—

Porphyrio hyacinthinus .. pl. 1	Anas tadorna pl. 8
Fulica cristata " 2	— rutila " 9
Phasianus colchicus " 3	Tetrao scoticus " 10
— pictus " 4	— saliceti " 11
Vanellus cristatus " 5	Uria grylle " 12
Totanus hypoleucus " 6	Vultur fulvus " 13
Perdix petrosa " 7	Cygnus olor " 14

In noticing the series for 1864 (Zool. Record, i. p. 62) we accidentally omitted to mention that figures of the nestling *Tetrao bonasia* and *Anas fusca* are given in plates 9 and 10. No letterpress accompanies these illustrations.

OOLOGY.

BARTLETT, A. D. Notes on the Breeding of several Species of Birds, &c. [See "NEOSSOLOGY."]

The eggs of *Eurypyga helias*, *Calonotus nicobarica*, *Gaira piririgua*, and *Ibis rubra* are described.

DRESSER, H. E. Notes on the Breeding of the Booted Eagle (*Aquila pennata*). Proc. Zool. Soc. 1866, pp. 377-380.

This paper, giving an account of two nests of the species found in Spain, contains a few interesting particulars, in addition to those furnished by Lord Lilford (*Ibis*, 1866, pp. 389, 390).

HOLTZ, LUDWIG. Die Beutvögel der Insel Gottland. Journ. für Orn. 1866, pp. 289-304, 361-385.

Sixty-six species observed breeding, none of which have not been mentioned in that character by previous observers (e.g. Wallengren, 'Naumannia', 1853, pp. 78-79, 1854, p. 264), or might not have been expected to appear in it, except, perhaps, *Loxia pityopsittacus*; and of this the evidence is incomplete. The observations as to the size and weight of eggs are very precise and numerous.

HUMBERT, ALOIS. Note sur la nidification de l'*Orthotomus longicauda*, Gm. Bull. Soc. Orn. Suisse, 1866, pp. 55-66, pl. v.

A collation of the various accounts given by original observers, which in some respects differ rather remarkably.

LILFORD, Lord. Notes on the Ornithology of Spain. *Ibis*, 1866, pp. 173-187, 377-392, pl. x.

Contains many observations on the breeding-habits of Spanish birds, and descriptions of their nests and eggs. Of *Cyanopica cooki* and *Aquila pennata* the latter are figured.

NORDMANN, ALEX. VON. Oologische Notiz. Bull. Soc. Imp. Nat. Moscou, 1865, xxxviii. pp. 448, 449.

On the colouring of the eggs of the Common Fowl and its allied species (?).

RAMSAY, E. P. On Australian Oology. Proc. Phil. Soc. Sydney (read 5th July, 1865), pp. 313-329, pl. ii.

After a few introductory remarks on the generalities of the subject, the author proceeds to describe minutely the nidificatory and oological peculiarities of species of *Pomatorhinus*, *Xanthomyza*, *Ptilotis*, *Sieura*, *Eopsaltria*, and *Micraea*. This plate contains beautiful figures of their eggs.

ACCIPITRES.

VULTURIDÆ.

Sarcorhamphus papa. Birds possibly of this species were seen near San Francisco Mountains. E. Coues, Proc. Acad. Philad. 1866, p.

Cathartes californianus, living in the Zoological Gardens, is figured P. Z. S. 1866, p. 366.

Cathartes burrovianus is figured. D. G. Elliot, B. N. Am. part ii.

Vultur monachus, note on. R. C. Tytler, Proc. As. Soc. Beng. 1866, pp. 74-76.

Gypaetus barbatus, Nitzsch's description of the wing-muscles. C. Giebel, Zeitschr. gesam. Naturw. xiii. pp. 149-158.

FALCONIDÆ.

BREHM, A. E. Die Raubvögel der deutschen Thiergärten. Journ. für Orn. 1866, pp. 217-231.

Various notes on five species of *Falco* and four of *Tinnunculus*.

KRATZSCH, H. Vortrag über die Raubvögel. Mittheil. aus dem Osterlande, xvii. pp. 204-210.

Contains a few general observations on the birds of prey, but nothing apparently of any great novelty or importance.

SCHLEGEL, H. De Vogels van Nederlandsh Indië, &c. Monographie 3. Valkvogels (Accipitres). Haarlem: 1866. 4to, pp. 84, tabb. xxviii. figg. 109.

This companion Monograph to that of the *Alcedines* noticed last year (Zool. Record, ii. pp. 97, 98) contains descriptions of thirty-nine species, all of which, except *Astur approximans*, are figured, as follows:—

Falco communis, tab. i. figg. 1, 2.
 — *moluccensis*, tab. i. figg. 3-5.
 — *cærulescens*, tab. ii. fig. 1.
 — *severus*, tab. ii. figg. 2, 3.
 — *frontatus*, tab. ii. figg. 4-6.
Aquila malayensis, tab. iii. figg. 1, 2.
Pandion haliaetus, tab. iii. fig. 3.
 — *ichthyaetus*, tab. v. figg. 1, 2.
 — *humilis*, tab. v. fig. 3.
Haliaetus leucogaster, tab. iv. figg. 1, 2.
 — *indus*, tab. iv. figg. 3-5.
Spizaetus cirratus, tabb. vi.-viii. 9 figg.
 — *gurneyi*, tab. ix. 2 figg.
Astur trivirgatus, tab. x. 4 figg.
 — *griseiceps*, tab. xi. figg. 1, 2.
 — *novæ-hollandiæ*, tab. xi. fig. 3.
Nisus virgatus, tab. xii. figg. 1-4.
 — *rhodogaster*, tab. xii. figg. 5, 6.
 — *erythrauchen*, tab. xiii. 4 figg.
 — *cruentus*, tabb. xiv. xv. 7 figg., tab. xvi. figg. 1, 2.

Nisus sulaensis, tab. xvi. figg. 3, 4.
 — *torquatus*, tab. xvii. 5 figg.
 — *iogaster*, tab. xviii. 3 figg.
 — *trinotatus*, tab. xix. figg. 1-3.
 — *soloensis*, tab. xix. figg. 4-6.
Milvus affinis, tab. xx. fig. 1.
Circus assimilis, tab. xx. figg. 2, 3.
Buteo liventer, tab. xxi. fig. 1.
 — *poliogenys*, tab. xxi. figg. 2, 3.
Circaetus bacha, tab. xxii. 3 figg.
 — *rufipectus*, tab. xxiii. figg. 1-3.
 — *sulaensis*, tab. xxiii. figg. 4-6.
 — *gallicus*, tab. xxiv. fig. 1.
Elanus intermedius, tab. xxiv. figg. 2, 3.
Pernis cristatus, tabb. xxv. xxvi. 7 figg.
Baza reinwardti, tab. xxvii. figg. 1-3.
 — *rufa*, *sp. nov.*, tab. xxvii. fig. 4, tab. xxviii. figg. 1-3.
 — *magnirostris*, tab. xxviii. figg. 4, 5.

Haliaetus albicilla is figured, D. G. Elliot, B. N. Am. part i.

Ichthyaetus leucogaster, head figured, S. Diggles, Orn. Austral. part v.

Aquila mogilnik (S. G. Gmelin): notes on this species, tending to show its specific distinctness from *A. heliaca*. A. Alléon, R. Z. pp. 273-277, pl. 20. Further remarks upon it, identifying it with *A. clanga* (Pallas) and this with *A. nerioides* (Cuvier). J. Vian, *tom. cit.* pp. 356-359.

Aquila barthelemyi, Mr. Gurney's notes on the species (Zool. Record, i. p. 66) translated. G. Lunel, Bull. Soc. Orn. 1866, pp. 102-104.

Aquila pennata, its eggs figured and a notice of its breeding in Spain. Lord Lilford, Ibis, 1866, pp. 185, 186, 380, 390, pl. x. figs. 1, 2. Further particulars, H. E. Dresser, P. Z. S. 1866, pp. 377-380.

Spizaetus andamanensis is a new species from the Andaman Islands, having a strong resemblance to *S. limnæus*, but being much smaller. R. C. Tytler, Proc. As. Soc. Beng. 1865, p. 112.

Spilornis hoyi is described as a new species from Formosa. R. Swinhoe, Ibis, 1866, pp. 304-307, 399. It is *S. orientalis* from Formosa (*tom. cit.* p. 242, note). J. H. Gurney, *tom. cit.* p. 421.

Baza rufa is a new species from Ilalmaheira; it has the bars beneath much less broad than they are in *B. magnirostris*, and they are of a more or less deep rufous on a reddish ground, which tint is also commonly present on the throat. H. Schlegel, Ois. Indes Néerl. *Falcones*, p. . *Idem*, N. T. D. iii. p. 328.

Buteo auguralis is a supposed new species from Eastern Africa, which may be *B. augur* ♂ in immature plumage. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Buteo vulgaris from the Azores much resembles *B. desertorum* (Daudin) from Barbary in plumage. F. D. C. Godman, Ibis, 1866, p. 94.

Buteo zonocercus, Sclater (P. Z. S. 1858, p. 130), first described from Guatemala, has occurred in Arizona. E. Coues, Proc. Acad. Philad. 1866, p. 46.

Stringonyx anderssoni, identified with *Machærhamphus alcinus*. A. D. Bartlett, P. Z. S. 1866, p. 324. (*Cf.* Zool. Record, ii. p. 92.)

Pernis apivorus is figured, J. Gould, B. Grt. Br. part ix.

Milvus affinis, head figured, S. Diggles, Orn. Austral. part i.

Cymindis pucherani is described as a new species from Trinidad, but differing in some respects from the characters supposed to be possessed by the genus, the bill being slightly festooned, the tail less rounded, and the region of the eyes less naked. A. Léotaud, Ois. Trinid. pp. 40, 41. (Possibly *Urubitinga anthracina* or *U. schistacea*? P. L. Sclater, Ibis, 1867, p. 107.)

Elanus axillaris, head figured, S. Diggles, Orn. Austral. part iii.

Falco radama from Madagascar is nothing but the common dark variety of *F. communis* [*sc. peregrinus*]. H. Schlegel, P. Z. S. 1866, p. 420.

Falco babylonicus occurs in the Punjab. T. C. Jerdon, Ibis, 1866, p. 221.

Falco subniger has lately been obtained in South Australia and near Brisbane. It is figured, S. Diggles, Orn. Austral. part ix.

Falco vespertinus (♂ and ♀) is figured. C. J. Sundevall, Sv. Fogl. pl. lxxi. figs. 3, 4.

Hypotriorchis concolor occurs in Zambesia. J. H. Gurney, Ibis, 1860, pp. 127, 128.

Hieracidea berigora, head figured, S. Diggles, Orn. Austral. part vi.

Tinnunculus cenchroides is figured, *Idem*, *op. cit.* part viii.

Accipiter ventralis is a new species from Bogota, readily distinguishable from all other American birds of the group (of which a synonymic and geographical list is given) by its chestnut belly and plumbeous thorax. P. L. Sclater, P. Z. S. 1866, pp. 302-304.

Accipiter lantzi is a new species from the west coast of Madagascar, having in its immature plumage some resemblance to *A. approximans*. J. Verreaux, R. Z. Oct. 1866, pp. 353-355, pl. 18. Closely allied to *A. (Nisus) fringillarius*, but having the colours, in the adult, darker and ten bands on the tail. H. Schlegel, P. Z. S. 1866, p. 420.

Nisuides [lege *Nisoides*] is proposed as a genus differing from *Nisus* in the form of the bill and colour of the iris, the latter being white, and the former large and stout, somewhat resembling that of *Polyboroides*, and having the maxilla straight, and without a decided edge. The type is

N. moreli, a new species from Madagascar. F. Pollen, Bull. Soc. Sc. et

Arts de la Réunion, 13 Avril, 1866. *Idem*, Mém. Scient. pp. 59-68. Referred to *Nisus* [sc. *Accipiter*]. H. Schlegel, P. Z. S. 1866, p. 420. Possibly identical with *Accipiter lantzi* (*vide supra*). F. E. Guérin-Méneville, R. Z. 1867, p. 160.

Nisus [sc. *Accipiter*] *madagascariensis* is the female or young of *N. franceni*. Schlegel, P. Z. S. 1866, p. 420, and N. T. D. lii. p. 362.

Nisus [sc. *Accipiter*] *unduliventer* and *N. [A.] tachiro* are only local races of the same species, as also are *N. spheurnus* (of which *N. guttatus*, Heugl., is the young), *A. brachydactylus*, *A. polyzonoides*, and *A. badius*. *Idem*, op. cit. pp. 359-362.

Climacocercus [s. *Micraster*] *zonothorax* is described as a new species from the coast-region of New Granada. It is somewhat larger and has a thicker bill than *Sparvius ruficollis*, Vieill. The red-brown above is darker; and beneath, the throats only are alike. The rest of the under parts, except the breast, are waved transversely with black on a whitish ground, these dark cross markings being much broader in the new species. J. Cabanis, J. f. O. 1865, pp. 406, 407*.

Strigiceps cineraceus, observations on its different plumages, habits, and mode of breeding: ♂ et ♀ juv. figured. F. B. de Montessus, R. Z. 1865, pp. 360-369, pls. 25, 26.

STRIGIDÆ.

NIEMEYER, W. Ueber die Nahrung unserer Eulen. Zoolog. Garten, 1866, pp. 366-369.

The author records his own observations on this question, which has already attracted the notice of Dr. Altum and others (Zool. Rec. ii. p. 92).

Scops retulus, Pucheran, is the red variety of *S. menadensis*. H. Schlegel, P. Z. S. 1866, p. 421.

Bubo maximus, with young, is figured, J. Gould, B. Gr. Br. part x.

Strix haasti is mentioned as a new species seen in Canterbury, New Zealand, but apparently not yet captured. It is as large as *Circus gouldi* and of dark-brown plumage. W. Buller, Ess. Orn. N. Zeal. p. 7.

Strix flammea, its economic value, B. Altum, Zoolog. Garten, 1866, pp. 410-413. Observations on its food, A. J. Jäckel, *ibid.* pp. 456-464. Occurrences of the dark-coloured variety in England, H. Doubleday, Zoologist, S. S. p. 522. Figured, C. J. Sundevall, Sv. Fogl. pl. lxxi. fig. 1.

Strix pithecopis is described as a new species from Formosa, nearly allied to *S. candida*, but differing from Dr. Jerdon's description of that bird by having a white ruff and other peculiarities. R. Swinhoe, Ibis, 1866, pp. 896, 897.

Strix walleri is described and figured as a new species from Brisbane, Queensland, much larger than *S. delicatula*. S. Diggles, Orn. Austral. part vii.

Strix noctua is figured. C. J. Sundevall, Sv. Fogl. pl. lxxi. fig. 2.

Noctua aruensis appears to be described as a new species from the Aru Islands, and the first member of the family found there. It resembles *N. franaensis* (Zool. Record, ii. p. 94), but is much larger. H. Schlegel, N. T. D. iii. p. 329.

Athene boobook, the head is figured, S. Diggles, Orn. Austral. part ii.

* Not published till 1866.

Microathene is a new genus established for the reception of *Athene whitneyi* (Cooper), having the middle toe and claw fully as long as the tarsus, and the wing not so much pointed, besides other peculiarities not so easily differentiated. E. Coues, Proc. Acad. Philad. 1866, p. 51.

PSITTACI.

FINSCH, OTTO. Die geographische Verbreitung der Papageien. Petermann's Geographische Mittheilungen, 1867*, pp. 3-7, taf. i.

The general results of the author's studies (which will be more specially given in a Monograph, of which the first volume has since appeared) are here contained. He divides the group, which he looks upon as forming one family only, into five sub-families—*Stringopinae*, *Plectolophinae*, *Sittacinae*, *Psittacinae*, and *Trichoglossinae*. The species known to him are, from America, 142, Africa 23, Asia and the Sunda Islands 18, Moluccas and New Guinea 83, Australia 59, and Polynesia 29. Five excellent maps on one plate serve materially to elucidate the subject.

OWEN, R. Evidence of a species, perhaps extinct, of large Parrot (*Psittacus mauritianus*), contemporary with the Dodo in the Island of Mauritius. Ibis, 1866, pp. 168-171, figs. (Translated) Ann. Sci. Nat. Zoologie, 5^{me} sér. 1866, vi. pp. 88-90, pl. 3. figs. 4, 5.

Among the Dodos' bones found by Mr. Clark (*vide infra* DIDÆ) was part of the lower mandible of a large Psittacine bird, quite new to science, and named by the author as above. The specimen seems to show that the species equalled the largest of the group in size, and had nearer affinities to African and Australian than to New-World forms; the particular section of the group to which it belongs will probably be in time determined (*vide infra* MILNE-EDWARDS, A.). Prof. Schlegel (N. T. D. iii. p. 318, note) considers *P. mauritianus* to be founded upon a bone of *Microglossa aterrima*, which had been introduced by the Portuguese into the island.

MILNE-EDWARDS, ALPHONSE. Observations sur les caractères ostéologiques des principaux groupes de Psittacides, pour servir à la détermination des affinités naturelles du *Psittacus mauritianus*. Ann. Sci. Nat. Zoologie, 5^{me} sér. 1866, vi. pp. 91-111, pls. 2, 3.

The author, led by Prof. Owen's suggestion, has examined the lower jaws of a large number of *Psittaci*, which are described at great length, figures of no less than eleven of the principal genera being given in illustration of his remarks, and considers that *P. mauritianus* cannot be placed in any of the small genera

* Copies received in England Dec. 1866.

or subgenera established by authors, but that it represented in the Mascarene Islands the South-American *Ara*, just as *Microglossa* and *Calyptorhynchus* do in the Australian region, that there is more analogy between the forms of the South-African and South-American faunas than between those of the first and those of Australia, and, finally, that *P. mauritianus* differs from the other *Psittaci* by osteological characters of the same value as those which separate *Ara*, *Calyptorhynchus*, *Microglossa*, and so forth from each other, having, however, a greater resemblance to *Ara* and *Microglossa* than to any other form. The author has been unable to discover any allusion in the records of old travellers to this new discovery.

PLYCTOLOPHIDÆ.

SCHLEGEL, H. Notice sur les Cacatous blancs à huppe jaune. Nederl. Tijdschr. Dierk. iii. pp. 318–321.

The author divides this group of birds into two sections, one with pendant, the other with erect crests. The first section may be again subdivided into:—those species having the crest large, as *Cacatua moluccensis* and *C. cristata*; and those having it small, among which are *C. sanguinea*, *C. philippinarum*, *C. roseicapilla*, and *C. citrinicristata* with red or orange, and three with sulphur crests, *C. galerita*, from Australia, *C. triton*, from New Guinea, the Aru Archipelago, and Goram, as far as the Solomon Islands, and *C. sulphurea*, from Timor, Flores, Lombock, and Celebes.

Microglossa aterrima is figured, S. Diggles, Orn. Austral. part ii., as also *Cacatua sanguinea*, *op. cit.* part viii., with the heads of *Calyptorhynchus leachi*, part v., and *C. funereus*, part ix.

STRIGOPIDÆ.

Nestor superbus is described as a new species from the alpine heights of the South Island of New Zealand. W. Buller, Ess. Orn. N. Zeal. p. 11. Probably *N. meridionalis* ♂. R. Taylor, Ann. & Mag. Nat. Hist. 3rd ser. xviii. p. 140.

Strigops habroptilus. A French translation of Dr. Haast's observations on this species (Zool. Record, i. p. 68, ii. p. 95) from 'The Ibis.' A. Humbert, Bull. Soc. Orn. Suisse, 1866, pp. 69–80.

PLATYCERCIDÆ.

Psephotus pulcherrimus and *P. multicolor* are figured, S. Diggles, Orn. Austral. part i.

Platycercus flaviventris and *P. barnardi*, their heads figured, S. Diggles, Orn. Austral. part iii., and *P. palliceps* and *P. flavocolus*, *Idem*, *op. cit.* part x.

PSITTACIDÆ.

Psittacula melanogenia is a new species from the Aru Islands, resembling *P. gularis* III. (Zool. Record, ii. p. 95), but not of so strong a build, with all the tints less bright and some other differences. Von Rosenberg, Tijdschr. Nederl. Indië, 1866; H. Schlegel, N. T. D. iii. p. 330.

Gnathosittaca heinii (Zool. Record, ii. p. 95) is identical with *Conurus icterotis*, Souancé. G. Hartlaub, Bericht u. s. w. p. 27.

Nymphicus nova-hollandiæ (♂ and ♀) is figured, S. Diggles, Orn. Austral. part iv., as also *Euphema aurantia*, *E. elegans*, and *Melopsittacus undulatus*, *op. cit.* part vii.

PICARIÆ.

PICIDÆ.

SUNDEVALL, C. J. *Conspectus Avium*. Stockholm: 1866. Royal 8vo, pp. 116.

This useful publication consists of a masterly digest of M. Malherbe's great 'Monographie des Piciidées,' published at Metz between 1859 and 1862. Each species is fully described, references being made to the works in which it is figured (when such is the case), and its habitat stated. Excellent indices are also added. The *Picidæ* are divided into three genera only—*Picus*, *Picumnus*, and *Jynx*. *Picus* is made to contain four series (further separable into tribes which are unnamed):—(1) *Angusticolles*, (2) *Securirostræ*, (3) *Ligonirostræ*, and (4) *Nudinæ*. The first of these series is composed of 4 tribes and 35 species, the second of 8 tribes and 103 species, the third of 14 tribes and 80 species, and the fourth of 4 tribes and 36 species. These tribes are further subdivided into sections and smaller groups. The effect of all this is to leave the genus *Picus* with 254 known species, besides 24 doubtful or spurious ones; *Picumnus* with 28, all pretty well determined; and *Jynx* with 4,—a very different treatment of the family from that of most modern authors. We think it needless to indicate the precise limits of the smaller groups of species, or their relation to the too numerous so-called genera which have been lately instituted; for the work is one which must be consulted by any one working at the family, and in its last pages contains a concise synopsis of their contents. Several new species are described; and some others receive new names in consequence of the author's arrangement of them. The whole of this careful work is in Latin. (*Cf.* Ibis, 1866, pp. 415, 416.)

Picus canifrons is a new species from Northern China, belonging to the same group as *P. auritus*, Eyton, from Malacca, and *P. kaleensis*, Swinhoe, from Formosa, with the anterior part of the back white and the crown grey, broadly girt with black behind. *Cf.* Sundevall, *Consp. Av. Picin.* p. 26.

Picus hedenborgi is a new species from Kordofan and Sennaar, belonging to the same group as *P. obsoletus*, Wagler, with which it was confounded by Malherbe, but from which it differs by having the gastræum slightly streaked with narrow dusky lines and by being larger. It is the *P. obsoletus* of Sundevall, *Cfvers. K. V.-Akad.* 1850, p. 131 (*nec* Malherbe, *nec* Cabanis et Heine). *Idem*, *op. cit.* pp. 31, 32.

Picus rubidus is a new species from Venezuela, belonging to the same group as *P. oleagineus*, Lichtenstein, from Mexico, *P. fumigatus*, Latr. & d'Orb., from Peru and Bolivia, and *P. caboti*, Malh., from Central America. It is the *Phlæonerpes reichenbuchi* of Cabanis and Heine (*nec* *Celeopicus reichenbachi*, Malherbe). *Idem*, *op. cit.* p. .

Picus albipes is a new species from Brazil, belonging to the same group as *P. affinis*, Swainson, *P. selysi*, Malherbe, and other species, but differing from them by having the bill white, blackish at the tip, the feet whitish, the claws dusky at the tip. The female only is known. *Idem*, *op. cit.* p. 37.

Gecinulus viridis, Blyth, from Burmah, is called *Picus scotochlorus*. *Idem*, *op. cit.* p. 48.

Chrysopicus malherbii, Cassin, is called *Picus imberbis*. *Idem*, *op. cit.* p. 68.

Colaptes mexicanoides, Lafresnaye, is called *Picus submexicanus*. *Idem*, *op. cit.* p. 72.

Picus flavilumbis is differentiated from *P. icteromelas*, Vieillot, but scarcely admitted to specific rank. It is the size of the species just named, but in colour is like *Chrysopicus chrysomelas*, Malherbe. It is from Brazil. *Idem*, *op. cit.* pp. 74, 75.

Picus squamigularis appears to be a new species from Malacca. It is perhaps *Picus badius*, Jerdon, from the same locality (*nec* Raffles, which is an inch longer). *Idem*, *op. cit.* pp. 89, 90.

Gecinulus canus and *G. viridis*, observations on their habits. D. H. Snell, Zoolog. Garten, 1866, pp. 137-142.

Picus major and *P. viridis*, variations in their plumage. T. E. Gunn, Zoologist, S. S. p. 271.

Picus major, *P. medius*, *P. minor*, *P. martius*, and *P. viridis*, observations on their anatomy from Nitzsch's MSS. C. Giebel, Zeitschr. gesammelt. Naturw. xvii. pp. 447-485.

Melanerpes formicivorus, in the autumn, selects, for storing away, acorns only which are infested by maggots, to serve as food for the young. The acorns are driven into the holes prepared for them, so as to prevent the escape of the maggot when it comes to maturity, and imprison it until wanted in the following spring. C. T. Jackson, Proc. Boston Soc. N. H. x. p. 227. Its provident habits doubted. J. K. Lord, Nat. Vancouver Isl. i. pp. 289-292.

Sphyrapicus thyroideus is figured, D. G. Elliot, B. N. Am. part ii.

Asyndesmus is a new genus established for the reception of *Picus torquatus*, Wils. Its most essential features are found in the unusual texture of the feathers of the under parts and nuchal collar, which have their fibres longer than usual and remarkably stiff, and the fibrillæ on their terminal portion of very peculiar character. E. Coues, Proc. Acad. Philad. 1866, p. 55.

Picumnus micromegas is a new species from Brazil, of large size, "gigas inter nanos," and forms of itself the tribe of "*Picumni enormes*." C. J. Sundevall, Consp. Av. Picin. pp. 95, 96.

Picumnus asterias is a new species from Brazil, dusky above, beneath black, thickly spotted with white. *Idem*, *op. cit.* p. 97.

Picumnus epilogaster is a new species from Guiana, grey above, whitish beneath, regularly barred on the throat, and on the belly longitudinally spotted with black. It is *P. minutus*, Cabanis and Heine (*nec* Linn.). *Idem*, *op. cit.* pp. 100, 101.

Picumnus guttifer, *P. squamifer*, and *P. sagittatus* are new species,—the first (which in markings resembles *P. orbignyianus*) from the interior of Brazil, the second from Surinam, and the third from Brazil. *Idem*, *op. cit.* pp. 101-103.

Picumnus nebulosus is a new species from South America. *Idem*, *op. cit.* pp. 103, 104.

Pionus pygmaeus, its characters more fully described. P. L. Sclater and O. Salvin, P. Z. S. 1866, p. 196.

TROGONIDÆ.

Trogon erythronotus is described as a new species from Mexico, ash-coloured with slaty-black quills, the vent and under tail-coverts red. J. W. von Müller, Reise in Mexico, i. p. 229, iii. p. 562.

Trogon clathratus is a new species from Veragua, at first sight having the appearance of *T. massena*, but considerably smaller, and with a tail barred as in *T. puella*. O. Salvin, P. Z. S. pp. 75, 76.

BUCCONIDÆ.

Malacoptila castanea is a new species from Bogota, in size approaching the largest species of *Monasa*. J. Verreaux, R. Z. 1866, pp. 355, 356, pl. 19.

CORACIIDÆ.

Eurystomus madagascariensis, notes on this species. F. Pollen, Album de l'île de la Réunion. *Idem*, Mém. Scient. pp. 13-19.

Eurystomus australis is figured, S. Diggles, Orn. Austral. part v.

Coracias garrula is figured, J. Gould, B. Grt. Br. part x.

MEROPIDÆ.

Merops apiaster is figured, C. J. Sundevall, Sv. Fogl. pl. lxx. fig. 1.

ALCEDINIDÆ.

Tanyptera riedeli is a new species (from Celebes?), blue-green above, white beneath, the scapulars indigo, rump white, a coral bill, and red-brown feet. J. Verreaux, Nouv. Arch. Mus. ii. pp. 21, 22, pl. iii. fig. 1.

Halcyon sanctus and *H. macleayi* are figured, S. Diggles, Orn. Austral. part ii.

Dacelo tyro is distinct from *D. gaudichaudi*. H. Schlegel, N. T. D. iii. p. 339.

Dacelo gigantea, the head figured, S. Diggles, Orn. Austral. part i.

Ceryle rudis and *Halcyon myrnenis*, their breeding-habits described. H. B. Tristram, Ibis, 1866, pp. 84-88.

Alcedo ispida is figured, C. J. Sundevall, Sv. Fogl. pl. lxx. fig. 2.

TODIDÆ.

Todus hypochondriacus appears to be described as a new species from Porto Rico, corresponding closely with Lesson's *T. mexicanus*, but wanting the yellow margin to the scarlet gular patch. H. Bryant, Proc. Bost. Soc. N. H. x. p. 250.

CAPITONIDÆ.

The *Megalamidæ* (or *Capitonidæ*), their affinities are nearer to the *Rhamphastidæ* than to the *Picidæ*. E. Blyth, Ibis, 1866, pp. 357, 358.

Xantholæma indica, note on its habits. G. E. Bulger, Ibis, 1866, pp. 218-220.

RAMPHASTIDÆ.

Aulacorhamphus cyanolæmus is a new species from Ecuador allied to *A. cæruleigularis* from Panama and *A. atrigularis* from Peru, but differing from

the former in the smaller extent of blue on the throat, and from the latter in having there no trace of black, and from both in the markings of the bill. J. Gould, P. Z. S. 1866, p. 24.

BUCEROTIDÆ.

The Hornbills of India and Burma are carefully enumerated. E. Blyth, *Ibis*, 1866, pp. 349-352.

UPUPIDÆ.

Upupa epops, note on its habits when breeding, with reference to its supposed affinity to the *Bucerotidæ*. D. Scott, *Ibis*, 1866, pp. 222, 223.

CUCULIDÆ.

ALTUM, B. Warum brütet der Kuckuk nicht selbst? Journ. für Orn. 1866, pp. 165-171.

The author answers this often-put question by alleging that Cuckoos require a great quantity of food, and accordingly individuals are necessarily widely dispersed during the greater part of the summer. Their function in the economy of nature is to check the increase of destructive caterpillars. As soon as these insects appear in any part of the country Cuckoos assemble there until the supply of food gets scarcer, when they return to their normal state of dispersal. Nature especially requires this service in May, June, and July (that is to say, the height of the breeding-season); and to enable Cuckoos to perform it she has discharged them from their parental duties.

ROWLEY, G. D. Thatsachen in der Haushaltung des Kuckuks. Journ. für Orn. 1866, pp. 172-181. Sur quelques faits relatifs aux mœurs du Coucou. Bull. Soc. Orn. Suisse, 1866, pp. 92, 93.

German and French translations of the paper from 'The Ibis' (1865, pp. 178-186) noticed by us last year (Zool. Record, ii. p. 99).

Cuculus canorus was seen by the author through a telescope to lay an egg on the grass, take it in its bill, and deposit it in the nest of *Motacilla alba*. Adolf Müller, Zoolog. Garten, 1866, pp. 374, 375. Remarks on the breeding of the species, G. Brucklacher, *ibid.* pp. 232, 233; V. Fatio, Bull. Soc. Orn. Suisse, 1866, pp. 107, 108.

Cuculus striatus and other Indian species of the family are considered at a great length. E. Blyth, *Ibis*, 1866, pp. 359-364.

Cuculus infuscatus is a new species from the Feejees, belonging to the sub-genus *Cacomantis*, and certainly not the same as *C. sinus* (Peale), which, again, is different from *C. cineraceus*, Vigors. G. Hartlaub, *Ibis*, 1866, p. 172.

Oryzophus glandarius, notes on its breeding in Spain. Lord Lilford, *Ibis*, 1866, pp. 177, 178, 183, 184.

Centropus lafresnayanus is a new species, from Eastern Madagascar, much resembling *C. tolu*, but to be distinguished by its larger size and the blue reflexions on its head and body. J. Verreaux, Nouv. Arch. Mus. ii. pp. 23-25, pl. ii. Considered identical with *C. tolu*, as also *C. superciliosus* (Hartl., nec Rüpp.). G. Schlegel, P. Z. S. 1866, p. 424.

Scythrops novæ-hollandiæ, the head figured, S. Diggles, Orn. Austral. part iv.

Chalcites lucidus and *Cuculus cineraceus* [sc. *flabelliformis*], the mode of

breeding of their most frequent fosterparents described. E. P. Ramsay, P. Z. S. 1866, pp. 571-577.

Chrysococcyx osculans, *C. lucidus*, and *C. basalis* are figured. S. Diggles, Orn. Austral. part vii.

Neomorphus salvini is a new species from Veragua, remarkable for its shorter and much more elevated bill and the uniformly rufous forehead. To this account are added descriptions of the other two species of the genus known to the author (Zool. Rec. i. p. 72), and the new one is figured. P. L. Sclater, P. Z. S. 1866, pp. 59, 60, pl. v.

Saurothera vieilloti, var. *rufescens*, is described from Porto Rico. H. Bryant, Proc. Bost. Soc. N. H. x. p. 256.

CAPRIMULGIDÆ.

SCLATER, P. L. Notes on the American *Caprimulgidæ*. Proc. Zool. Soc. 1866, pp. 123-145, pls. xiii., xiv.

This highly important and elaborate paper requires no small care to bring out its most interesting features. After briefly touching upon the chief authorities for the special subject in hand, the author offers some preliminary observations on the whole family and its geographical distribution. The *Caprimulgidæ* present two very different modes of structure in their feet, by which they are readily divided into two divisions. In the first of these, or *Caprimulginae* proper, the outer toe has four phalanges only, and the middle claw is pectinated; in the second the normal number of five phalanges obtains, and the middle claw is smooth. Again, the sternum offers important characters for classification, as was pointed out by M. Blanchard (Ann. du Mus. 1859, xi. pp. 104-108). These, as well as those afforded by the phalangeal series, are illustrated by woodcuts (pp. 124-126). *Podargus*, and the forms allied to it, such as *Nyctibius*, may probably have to be separated into a distinct family. The result of Mr. Sclater's investigations is that he divides the whole family into three subfamilies—(I.) *Podarginae*, with the genera *Podargus*, *Batrachostomus*, *Ægotheles*, and *Nyctibius*; (II.) *Steatornithinae*, composed of *Steatornis* only; and (III.) *Caprimulginae*, divided into two sections—(a.) *Glabrirostræ*, containing *Podager*, *Lurocalis*, *Chordiles*, *Lyncornis*, and *Eurystopodus*; and (b.) *Setirostræ*, including *Caprimulgus*, *Scotornis*, *Macrodipteryx*, *Anrostomus*, *Stenopsis*, *Hydropsalis*, *Heleothreptus*, *Nyctidromus*, and *Siphonorhis*. Passing then to the American forms of these subfamilies, an excellent synonymatic and diagnostic list of the forty-two species (one of which is new) known with certainty to the author is given, with remarks on their habitats and the like, this valuable paper being concluded with a table showing their geographical distribution in the New World. It is only to be regretted that the plates illustrating it are so very inartistically executed.

——. Additional Notes on the *Caprimulgidæ*. Tom. cit. pp. 581-590, pls. xlv., xlvi.
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Podargus wants the oil-gland, and possesses powder-down patches on the rump. These and the tongue are figured. *Nyctibius* also probably has like patches, and the author's views as to the removal of the *Podarginae* from this family are thereby strengthened. Further remarks on, or descriptions of, some other species of *Caprimulgidae*, four more of which are described as new, complete this paper.

Podargus phlaenoides is figured, S. Diggles, Orn. Austral. part x.

Batrachostomus, anatomical notes on. E. Blyth, Ibis, 1866, p. 357, note.

Antrostomus ornatus is a new species from Brazil, like *A. rutilus*, but very much blacker, and large oval spots on the second and third rectrices, one of which is figured in a woodcut. P. L. Sclater, P. Z. S. 1866, pp. 586, 587, pl. xlv. (*fig. mala*).

Antrostomus parvulus (Gould, P. Z. S. 1837, p. 22) and *A. maculicaudus* (Lawr. Ann. Lyc. N. York, vii. p. 459) are figured. *Idem*, tom. cit. pls. xiii., xlv. (*figg. male*).

Stenopsis ruficervix is a new species from New Granada and Ecuador, like *S. bifasciata*, but smaller and with a rufous-chestnut collar, and crown spotted with rufous. P. L. Sclater, P. Z. S. 1866, pp. 140, 141, pl. xiv. (*fig. mala*). (The outer rectrices in this and the two other species of *Stenopsis* are figured, *ibidem*, p. 139.)

Stenopsis leucura (Vieill.) is proposed to be called "*S. candicans*, Pelzeln," and is minutely described. *Idem*, tom. cit. pp. 588, 589.

"*Stenopsis langsdorfi* and *S. platara*, Pelzeln," are described as two new species,—the first from Eastern Brazil, much resembling *S. candicans* [*sc. leucura*], but having narrower, more pointed, and entirely banded wings, and differing also in the ochre-yellow of the under side and the banded tail. The second, from Southern Brazil, is near *S. ruficervix*, but is smaller, and has grey markings on the upper surface; it also wants the white wing-spot and tail-bands. Both species were found by Natterer. *Idem*, tom. cit. pp. 588-591.

Hydropsalis ypanemæ and *H. pallescens* (Zool. Rec. ii. p. 99), the descriptions reprinted. J. f. O. 1866, pp. 46-49.

Semiophorus vexillarius, Gould, is the freshly moulted *Caprimulgus longipennis*. H. Schlegel, P. Z. S. 1866, p. 421.

Caprimulgus papuensis is a new species from Salwatty and the coast of New Guinea, allied to *C. macrurus*, but less deep in colour, with the throat coppery-rufous, banded and barred with black, the feathers of the breast and belly terminated by a large rufous spot, and wanting the white tip to the tail. H. Schlegel, N. T. D. iii. p. 340.

Caprimulgus tamaricis (Zool. Record, i. p. 72) is beautifully figured and its habits are described. H. B. Tristram, Ibis, 1866, pp. 74-76, pl. ii.

Caprimulgus macrurus is figured. S. Diggles, Orn. Austral. part iv.

Cypselus melba, account of its habits. C. Bolle, J. f. O. 1866, pp. 62-70; H. B. Tristram, Ibis, 1866, pp. 77-79; V. Fatio, Bull. Soc. Orn. Suisse, 1866, pp. 47-54.

Cypselus affinis, a suggested explanation of its apparently varying mode of nidification. H. B. Tristram, Ibis, 1866, pp. 76, 77.

Cypselus acuticauda must be added to the Indian ornith. E. Blyth, Ibis, 1866, p. 339.

Cypselus australis and *Acanthylis caudacuta* are figured. S. Diggles, Orn. Austral. part vii.

"*Chætura grandidieri*, Verreaux," is named as a new (?) species from Madagascar, but no diagnosis is given. H. Schlegel, 1866, p. 421.

GRAY, G. R. A synopsis of the Genus *Collocalia*, with Descriptions of New Species. Ann. & Mag. Nat. Hist. 3rd ser. 1866, xvii. pp. 118-128.

The object of this paper is to exhibit the number of species known and to indicate their geographical distribution; but it is not so clearly arranged as most of the author's writings, and we are not sure that we entirely understand his views. It would appear that thirteen species are discriminated by him, of which three seem to be described as new, while one, *C. nidifica*, is separable into seven varieties or local races. Mr. Gray abstains from employing the specific name "*esculenta*," as he considers its typical representative to be still enveloped in much doubt.

Collocalia hypoleuca, *C. spilura*, and *C. neglecta* are separated from the *C. esculenta* of Mr. Wallace (P. Z. S. 1863, p. 384). The first was long ago described (P. Z. S. 1858, p. 170). The second is from Batchian, and has the spot on the first and fourth rectrices not so prominent as on the second and third; it is sometimes hardly visible on the first. The third is from Timor; in its upper surface it is totally different from those of the other localities, and it is of a more pure white beneath. G. R. Gray, *ut supra*, pp. 120, 121.

Collocalia uropygialis from Aneiteum is separated from *C. leucopygia* of Wallace (*loc. cit.*) from New Caledonia. It has the abdomen pure white, and shorter wings.—*Collocalia brevirostris*, *C. gelatinosa*, *C. malaisia*, *C. philippina*, and *C. ualensis*, as well as forms from Celebes, the Moluccas, Papua, Timor, and Marianne Islands, are all referred to local races of *C. nidifica*. *Idem*, *tom. cit.* p. 123.

TROCHILIDÆ.

BURMEISTER, H. Ueber die von Azara beschriebenen Kolibri-Arten. Nachtrag. Journ. für Orn. 1866, pp. 88-90.

An addition to the paper we noticed last year (Zool. Record, ii. p. 100). Some of the *Trochilidæ* have a double moult; and this fact accounts for doubts hitherto existing as to the identification of Azara's species.

MULSANT, E., et VERREAUX, J. et E. Essai d'une classification méthodique des Trochilidées ou Oiseaux-Mouches. Paris: 1866. 8vo, pp. 98. (Extrait des Mém. Soc. Sc. Nat. Cherbourg, t. xii. 1866, pp. 152-240.)

The object of this work is to supply the want of an analytical arrangement of this family, and to assign characters to the different groups composing it. Prof Mulsant starts by dividing the *Trochilidæ* into two tribes, "*Trochiliens*" and "*Ornismiens*," distinguished by characters drawn from what he calls the "*mandibule*"—the *maxilla* of almost all other ornithologists, for he transposes this term and *mandibula*. Of the "*Trochiliens*" he makes two sections, left unnamed; the first

contains the branches "Grypaires," "Phætonaires," "Campyloptéroides," "Lampornaires," "Doryféroides," and "Leucolaires," the last being further subdivided into the boughs "Leucoliatés," "Amaziliatés," "Hylocharatés," and "Chlorolampatés." The second section is composed of the branches "Trochiliatés," "Florisugaires," "Petasophoraires," "Callipéridaires," "Thaluranaires," and "Avocettinaires." The "Ornismiens" contain two divisions, each subdivided into two sections, which, as before, are unnamed. Of the first division, the first section is composed of the branches "Patagonaires," "Chrysolampaires," "Clytolémaires," and "Diphlogénaires," and the second of the branches "Euclosiaires," "Eriocnémaires," "Aglæactaires," "Adélomières," and "Lophornaires," the last containing the boughs "Oxypogonates" and "Lophornates." Of the second division, the first section is composed of the branches "Mélisugaires," "Platuraires," and "Lesbiaires," and the second of the branches "Amathusiaires," "Zéphyritaires," "Sélasphoraires," and "Ornismiaires." The different branches and boughs, for so we translate the words "branches" and "rameaux," are further subdivided into 70 genera, including 29 subgenera; and, Mr. Gould having, in his 'Introduction to the Trochilidæ' (1861), recognized 123 genera, we should be inclined to look upon Prof. Mulsant's arrangement as an improvement, but for the belief that his reduction in their number seems to be obtained in some cases by totally ignoring certain of his predecessor's divisions, while, on the other hand, the use of so many groups larger than genera deprives the present work of a very desirable simplicity; but the fact, which is highly creditable to him, remains to be mentioned that characters which are more or less definite are assigned to each group of species, whether larger than a genus or less, named or unnamed. Eleven new genera and 13 new subgenera are proposed, not always perhaps with a good show of reason, while several others are employed in a sense very different from that attributed to them by Mr. Gould. Prof. Mulsant also takes a good many liberties with the spelling of scientific names, his object being to facilitate their pronunciation, regardless of orthography. Three hundred and seventy species are enumerated; but we regret to add that four new ones are mentioned by name without any description—a practice which is deserving of the strongest reprobation. The authors announce, we are glad to say, that this essay is intended as the precursor of a larger work on the subject, of which they hope soon to begin the publication. (Cf. *Ibis*, 1867, pp. 126–129.)

Leucolia is a new genus, to which thirteen species are assigned, the first mentioned being *Dolerisea fallax* (Bourc.), Gould, Mon. Troch. pl. lvi. E. Mulsant et Verreaux, Class. Méth. Troch. p. 31.

Ariana [qu. *Ariadne*?] is a new genus containing ten species, the first men-

tioned being *Erythrionota niveiventris*, Gould, Mon. Troch. pl. cccxix. *Idem*, op. cit. p. 36.

Euclosia is a new genus of two species, the first being *Lafresnaya flavicaudata* (Fraser), Gould, Mon. Troch. pl. lxxxv. *Idem*, op. cit. p. 63.

Callidice is a new genus established for *Panophites flavescens* (Lodd.), Gould, Mon. Troch. pl. cxi. *Idem*, op. cit. p. 65.

Erebenna is a new genus proposed for *Ericcnemis derbyi* (Delatt.), Gould, Mon. Troch. pl. cclxxix. *Idem*, op. cit. p. 66.

Bellona is a new genus, to which five species are assigned, the first mentioned being *Cephelepis delalandi* (Vieill.), Gould, Mon. Troch. pl. ccviii. *Idem*, op. cit. p. 75.

Paphosia is a genus established for *Lophornis helene* (Delatt.), Gould, Mon. Troch. pl. cxxiii. *Idem*, op. cit. p. 75.

Telamon is a new genus containing three species, of which the first mentioned is *Lophornis delatirii* (Less.), Gould, Mon. Troch. pl. cxxi. *Idem*, op. cit. p. 75.

Uralia is a new genus established for *Spathura cissiura*, Gould, Mon. Troch. pl. clxvi. *Idem*, op. cit. p. 81.

Amathusia is a new genus of eight species, of which the type seems to be *Doricha henicura* (Vieill.), Gould, Mon. Troch. pl. clvii. *Idem*, op. cit. p. 95.

Zephyritis is a new genus containing six species, the first one mentioned being *Myrtis fannia* (Less.), Gould, Mon. Troch. pl. cli. *Idem*, op. cit. p. 87.

Dyrinia, *Egolia*, *Elcira*, *Emilia*, *Eupogonus*, *Galenia*, *Halia*, *Manilia*, *Mesophila*, *Momus*, *Osalia*, *Philodoce*, and *Polymnia* are the names of new subgenera proposed by M.M. Mulsant and Verreaux. *Op. cit.*

Amazilia pristina, Gould, Mon. Troch. pl. ccciii., is called *A. lessoni* (p. 35). *Lampropygia cæligena*, Gould, Mon. Troch. pl. cclv., and *L. boliviana*, *Id.*, Introd. Troch. p. 137, are combined to form *Diphlogena (Helianthea) lessoni* (p. 81). *Orthorhynchus ornatus*, Gould, Mon. Troch. pl. ccvi., is called *Bellona hectoris* (p. 75), and *Calypte helene*, Gould, op. cit. pl. cxxxvi., is called *Zephyritis (Calypte) elvira* (p. 88). *Idem*, op. cit.

Phaethornis cassini is described as a new species from New Granada, differing from all others of the genus in having the upper plumage reddish-bronze without a trace of green. G. N. Lawrence, Ann. Lyc. New York, 1866, pp. *.

Eustephanus stokesi is the female of *E. fernandensis*, E. L. Landbeck, P. Z. S. 1866, pp. 556, 557.

"*Leucippus chlorocercus*, Gould," is apparently a new species from the Ucayali, Eastern Peru, about the size of *L. chionogaster*. P. L. Sclater and O. Salvin, P. Z. S. 1866, p. 194.

"*Thaumantias bartletti*, Gould," is a new species from the Upper Ucayali, Eastern Peru, closely allied to *T. fluviatilis*, but having a blue breast. P. L. Sclater and O. Salvin, P. Z. S. 1866, p. 194.

Eupherusa cupreiceps is described as a new species from Costa Rica, resembling *Thaumantias chionurus*, but half an inch less in length, coppery above and on the two middle rectrices, the rest being nearly all white. G. N. Lawrence, Ann. Lyc. New York, 1866, pp. *.

Eupherusa niveicauda (Zool. Rec. ii. pp. 100, 101) is identical with *Thaumantias chionurus*. *Idem*, ut supra, p. *.

* From a separately printed copy kindly forwarded by the author.

Chlorestes mentalis is a new species from the coast-region of New Granada [qu. Venezuela?]; it is *Eucephala cærulea* of Gould (Intr. Troch. p. 167), from the same locality, but not from Brazil. It has a longer bill and less blue on the chin. J. Cabanis, J. f. O. 1866, p. 159.

Holiodoxa henryi, *Thaumantias viridicaudus*, and *Amazilia graysoni* are described as new species. G. N. Lawrence, Ann. Lyc. New York, 1866, pp. 402-405. The first of these is said to be identical with *H. jacula*, the second to be the female of *Chrysuronia humboldti*, and the third, which comes from Mexico (Tres Marias Islands), to differ only from *A. cinnamomea* in being larger. J. Gould, Ibis, 1867, p. 247.

PASSERES.

PITTIDÆ.

"*Philepitta schlegeli*, Pollen," is a new species from Madagascar, the adults with the eye surrounded by large blue and green lobes, beneath and fore part of back yellow, head black, other upper parts yellowish-green; the young without lobes. H. Schlegel, P. Z. S. 1866, p. 422.

Philepitta sericea, Geoffr., and *Brissonia nigerrima* (Gmel.) are the adult males of *P. jala* (Bodd.), of which *P. geoffroyi* is the female or young. *Idem*, loc. cit.

FORMICARIIDÆ.

Thamnophilus leucopygus is described as a new species from Panama, to be distinguished from its allies by its white rump. G. N. Lawrence, Ann. Lyc. New York, 1866, pp. 401, 402.

Dysithamnus puncticeps is a new species from Veragua, allied to *D. strati-ceps*, but easily distinguished by its spotted head and cinereous back. They probably should both be referred to the genus *Thamnophilus*. O. Salvin, P. Z. S. 1866, pp. 72, 73.

Hypocnemis melanura and *H. hemileuca* are two new species,—the first, from the Upper Ucayali, allied to *H. melanopogon*, but with longer tarsi and entirely black head and tail, differing also from *H. schistacea* by its black head and white-bordered wing-coverts; the second, from the Lower Ucayali, is also allied to *H. melanopogon*, but distinguishable by being black above and white beneath. P. L. Sclater and O. Salvin, P. Z. S. 1866, pp. 186, 187.

Formicarius rufipectus is a new species from Veragua, allied to *F. analis*, but distinguishable at first sight by its castaneo-rufous breast. A diagnostic, synonymic, and geographical list of the seven known species is given. O. Salvin, P. Z. S. 1866, pp. 73-75, pl. viii.

Grallaria gigantea is a new species from Ecuador, the largest of the group known. It somewhat resembles *G. squamigera*, but has regular and more distinct transverse markings, which extend over the whole under surface. The bill and legs are also much stouter. G. N. Lawrence, Ann. Lyc. New York, 1866, pp.

Grallaricula costaricensis is described as a new species from Costa Rica, somewhat like *G. ferrugineipectus*, but with a dull orange-rufous throat, dark-brown wing-coverts, and the breast-feathers margined with black. *Idem*, ut *suprà*, pp.

MENURIDÆ.

Menura superba, notes on this bird in confinement. G. Bennett, P. Z. S. 1866, pp. 167, 168. Figured, S. Diggles, Orn. Austral. part ix.

Orthonyx spinicauda ♂ is figured, with the heads of ♀ and young. S. Diggles, *op. cit.* part viii.

PTEROPTOCHIDÆ.

Pteroptochus castaneus (Zool. Record, ii. p. 102) is redescribed as a new species, no notice being taken of its former mention by the same authors. R. A. Philippi and L. Landbeck, Arch. f. Naturgesch. 1866, ii. pp. 121-123.

DENDROCOLAPTIDÆ.

SCLATER, P. L. Note on the Genus *Geobates* of Swainson. Proc. Zool. Soc. 1866, pp. 204, 205, pl. xxi.

The author has only lately had an opportunity of seeing this remarkable form, which he considers to belong to the *Furnariine* or terrestrial group of *Dendrocolaptidæ*, close to *Geositta*. The only species of the genus known, *Anthus pæcilopterus*, Max. Beitr. ii. p. 633 (= *Geobates brevicauda*, Sw. An. in Menag. p. 322) is fully described and figured, and Natterer's MS. notes concerning it printed. *Geobamon rufipennis*, Burm. (J. f. O. 1860, p. 465), seems somewhat allied to this form.

Geositta crassirostris is a new species from the coast-region of Peru, allied to *G. tenuirostris*, but with a shorter and thicker bill and shorter wings. P. L. Sclater, P. Z. S. 1866, p. 98.

Furnarius torridus is a new species from the Ucayali, to be distinguished from all others of the genus by the deep rusty-rufous back. P. L. Sclater and O. Salvin, P. Z. S. 1866, p. 183. Figured, and a synopsis of the six known species given. *Idem*, Exot. Orn. pp. 7, 8, pl. iv.

Synallaxis poliophrys is a new species from Cayenne, like *S. ruficapilla*, but with a narrow olive forehead, the tips of the feathers scarcely rufescent, cinereous superciliary streak, a whitish spot on the lores, each black feather of the throat tipped with white. J. Cabanis, J. f. O. 1866, p. 307.

"*Synallaxis crassirostris*, Landbeck," is a new species from Mendoza, with a strong bill, white underparts, red-brown chin, and reddish under wing- and tail-coverts. F. Leybold, J. f. O. 1865, pp. 401, 402*.

Synallaxis masafueræ is described as a new species from Chili, generally of a dirty greyish-green colour. R. A. Philippi and L. Landbeck, Arch. f. Naturgesch. 1866, ii. pp. 127-129.

Synallaxis terricolor and *S. vulpecula* are two new species from the Ucayali: the first whole-coloured above, and with its ten much graduated and pointed rectrices; the second allied to *S. vulpina*, but with a longer bill, entirely whole-coloured above and spotted obsoletely on the belly. P. L. Sclater and O. Salvin, P. Z. S. 1866, pp. 183, 184.

Automolus rufescens is described as a new species from Costa Rica. G. N. Lawrence, Ann. Lyc. New York, 1866, p.

Dendrocolaptes altirostris is described as a new species from Trinidad,

* Not published till 1866.

hardly distinguishable in plumage from *D. picus* (Gm.), but with a bill more curved, and as high as broad. A. Léotaud, Ois. Trinid. pp. 166, 167.

MELIPHAGIDÆ.

"*Zosterops ficedulina*, Hartl.," is a new species from Ilha do Principe, Bight of Benin. H. Dohrn, P. Z. S. 1866, p. 327; J. G. Keulemans, N. T. D. iii. p. 389.

Zosterops flavifrons, Pollen (nec Gray), is named "*Z. mayottensis*, Pollen." H. Schlegel, P. Z. S. 1866, p. 422. (Cf. Zool. Record, ii. p. 104.)

Zosterops, a species identified by Dr. Gray with *Z. dorsalis*, has lately appeared in New Zealand, and is now abundant at Wanganui. R. Taylor, Ann. & Mag. N. H. 3rd ser. xvii. p. 237, xviii. p. 140; Ibis, 1866, p. 208.

Xanthomyza phrygia, *Ptilotis fusca*, and *P. auricomis*, their mode of breeding described and eggs figured. E. P. Ramsay, Proc. Phil. Soc. Syd. 1865, pp. 319-324, pl. ii. figs. 3-5.

Plectorhyncha lanceolata and *Xanthomyza phrygia* are figured. S. Diggles, Orn. Austral. part iii.

Ptilotis gracilis is a new species from Cape York, Queensland. J. Gould, P. Z. S. 1866, p. 217.—*Ptilotis cassidix*, a new species from Victoria, exhibited but not described. J. Gould and W. Jardine, tom. cit. p. 558.

Ptilotis plumulus, *P. ornatus*, *P. fasciularis*, *P. fuscus*, and *P. auricomis* are figured. S. Diggles, Orn. Austral. part. iv.

Anthornis auriocula is described as a new species from the Chatham Islands, closely resembling the New Zealand *A. melanura*, but larger and lighter in colour. W. Buller, Ess. Orn. N. Zeal. p. 8.

Anthochera mellivora and *A. carunculata* are figured. S. Diggles, Orn. Austral. part. ix.

NECTARINIIDÆ.

Nectarinia australis (♂ and ♀) is figured. S. Diggles, Orn. Austral. part i.

CEREBIDÆ.

Spodiornis is a new genus allied to *Conirostrum*, but with a much thicker bill, shorter wings and tail, and stronger feet, the first remex longer than the fifth, the second, third, and fourth nearly equal and longest. The type is

S. jardinii, a new species from Ecuador, wholly plumbeous or dark cinereous, the wings and tail blackish, and, except the primaries and outer rectrices, edged with cinereous, beneath paler with whitish striations, so as in general appearance to resemble *Phrygilus geospizopsis*, and showing a close connexion of the *Ceribidæ* through the *Tanagridæ* with the *Fringillidæ*. The bill, wing, and foot are figured. P. L. Selater, P. Z. S. 1866, pp. 323, 324.

Certhiola flaveola, var. *portoricensis*, differs from the Jamaican form by its smaller size, the lighter colour of the back and throat, and the absence of any red tinge from the breast. H. Bryant, Proc. Bost. Soc. N. H. x. p. 252. (Mr. Cassin considers that the true *C. flaveola* occurs in Porto Rico. Cf. Zool. Rec. i. p. 76.)

Certhiola bairdi, *C. columbiana*, *C. majuscula*, and *C. peruviana* are described as new species. The first, from Indian Key, is large, and with the tips of all the rectrices white. The second is from Bogota, and differs from *C. luteola* of Venezuela and the coast-region of New Granada in the paler back, brighter

yellow rump, smaller white tips to the tail, and a slightly developed white speculum. The third, from Monte Video and the southern districts of Brazil, is, next to *C. major* from Guyana, the largest of the genus.] It has no white speculum, and is otherwise like the Brazilian *C. chloropyga*, except that the colouring, especially above, is paler and duller. The fourth, from Peru, which is probably *C. flaveola*, Tschudi (*nec* L.), resembles *C. majuscula*, but is to be recognized by its remarkably white speculum. J. Cabanis, J. f. O. 1865, pp. 412-414*.

COTINGIDÆ.

Lipaugus unirufus, *L. subalaris*, and *L. rufescens* are figured, and a synopsis of the ten species known to the authors is given. P. L. Sclater & O. Salvin, Exot. Orn. pp. 1-6, pls. i.-iii.

Xipholena atropurpurea is figured, and a synopsis of the three known species given. P. L. Sclater & O. Salvin, Exot. Orn. pp. 9, 10, pl. v.

Metopothrix is a new genus of the subfamily *Piprinae*, with a long, much compressed, and slightly curved bill, having no notch; frontal feathers short, erect, and bristly; gape smooth; wings moderate, scarcely reaching to half the tail; the second to fourth remiges nearly equal and longest, the first equal to the sixth; long graduated tail; tarsi moderate, a little longer than the middle toe, the three anterior toes united at the base. The type and only species is *M. aurantiacus*, from Sarayacu in Eastern Peru. P. L. Sclater & O. Salvin, P.Z. S. 1866, pp. 190, 191, pl. xviii.

SCLATER, P. L. Note on the Distribution of the Species of *Chasmorhynchus* †. Ibis, 1866, pp. 406, 407.

C. variegatus most probably does not occur in Brazil, as had been supposed. The coast of Venezuela and Trinidad appear to be its localities. *C. nudicollis* is from the coast-region of South-east Brazil, *C. albus* from Guiana, and *C. carunculatus* from Central America. The areas occupied by each nearly, too, correspond with those of the four species of *Galbula* allied to *G. viridis*. *C. nudicollis* has been brought alive to England. (Cf. Intell. Observer, Jan. 1867, pp. 401-408.)

AMPELIDÆ.

The genera *Myiadestes*, *Cichlopis*, and *Platycichla* probably belong to the *Turdidæ*. S. F. Baird, Rev. Am. B. pp. 408, 409, and 417.

Myiadestes solitarius is a name given to the *Muscicapa armillata* of Gosse (B. Jam. p. 198) and other authors except Vieillot. The first inhabits Jamaica, and has not the white chin, the rufous belly, and yellow legs of the last, which is supposed to be from Martinique. S. F. Baird, *op. cit.* p. 421.

Ptilogonys caudatus is figured, P. L. Sclater & O. Salvin, Exot. Orn. pp. 11, 12, pl. vi.

Pachycephala graeffii and *P. (?) optata* are two new species from the Feejees. The first is a typical species easily to be distinguished from several nearly allied birds by the dark gamboge-yellow chin; the latter is described from the female only. G. Hartlaub, Ibis, 1866, pp. 172, 173.

* Not published till 1866.

† From some information lately brought to our knowledge by Dr. Murie, we are decidedly of opinion that *Chasmorhynchus*, whatever be its true affinities, must not be classed among the *Passeres* as restricted in this 'Record.'—A. N.

Pardalotus affinis and other species of the genus, further notes (Zool. Record, ii. p. 105) on their plumage. E. P. Ramsay, Ibis, 1864, pp. 126, 127.

TIMALIIDÆ.

Stachyrhis præcognitus is a new species from Formosa [very like *S. ruficeps*, but with a darker head and striped throat]. To this bird belonged the nest and eggs attributed (Ibis, 1863, p. 306) to *Calamotherpe minuta*. R. Swinhoe, Ibis, 1866, pp. 309-311.

Pomatorhinus temporalis and *P. superciliosus*, their mode of breeding described and eggs figured. E. P. Ramsay, Proc. Phil. Soc. Sydn. 1865, pp. 316-319, pl. ii. figs. 1, 2.

Actinodura egertoni and *A. nipalensis* are figured. J. Gould, B. As. part xviii.

Alethe striaticollis is a new species from the Gaboon, typical in form, and indeed hardly to be distinguished generically from *Napothera*. G. Hartlaub, J. f. O. 1866, p. 37.

Cuphopterus is a new genus *, established by Dr. Hartlaub, of which the principal characters seem to be a moderate bill, somewhat rounded, keeled, and scarcely notched, the culmen deflexed towards the tip, the gonys ascending, scarcely any bristles; wings short, extending a little beyond the base of the tail, the first remex spurious, the fourth longest, the fifth scarcely shorter; tail longish; feet stout; tarsus longish and scutellated; exterior and interior toes nearly equal; claws small and weak. The type is

"*C. dohrni*, Hartl.," a new species from Ilha do Principe, Bight of Benin. H. Dohrn, P. Z. S. 1866, pp. 326, 327, pl. xxxiv.; J. G. Keulemans, N. T. D. iii. pp. 386, 387.

HIRUNDINIDÆ.

Hirundo æquatorialis is described as a new species from Ecuador, resembling *H. albiventris* from Brazil, but of a lighter green, with scarcely any bluish shade; the wings and rump more conspicuously white. It also is smaller, and has a very much narrower bill. G. N. Lawrence, Ann. Lyc. New York, 1860, pp. 400, 401.

Hirundo riocouri has occurred in England. J. H. Gurney, Jun., Ibis, 1866, p. 423.

Hirundo filifera is figured. J. Gould, B. As. part xviii.

"*Cotyle eques*, Hartl.," is a new species from Ilha do Principe, Bight of Benin. H. Dohrn, P. Z. S. 1866, p. 325.

ORIOLIDÆ.

Sphæcotheres australis and *S. flaviventris* are figured. S. Diggles, Orn. Austral. part ii.

VIREONIDÆ.

Laminireo is a proposed subgenus of *Vireosylva* with *V. flavifrons* as its type. S. F. Baird, Rev. Am. B. pp. 326, 345-350.

* Dr. Hartlaub has kindly informed us by letter that in the Bremen Museum this singular form has been placed next to *Alethe*. No hint of its affinities is conveyed in the description. Dr. Dohrn's note states that its song is like that of *Sylvia cinerea*. The attitude and accessories of the figure might induce the opinion, doubtless an erroneous one, that it was allied to *Anthus*!

Vireosylvia propinqua is described as a new species from Guatemala, differing from *V. solitaria* by having the nape, sides of the neck, and upper tail-coverts plumbeous, the sides of the throat yellow, the flanks nearly, and the vent quite, white, and also by having the remiges differently proportioned. S. F. Baird, *op. cit.* pp. 348, 349.

Vireo plumbeus is a new species from the southern Rocky Mountains and Mexico, very like *V. solitarius*, but larger, and the olive-green and yellow of that bird replaced respectively by plumbeous and white. E. Coues, Proc. Acad. Philad. 1866, p. 74. It is *V. solitarius*, Coues (Ibis, 1866, p. 164). Referred to *Vireosylvia*. S. F. Baird, Rev. Am. B. pp. 349, 350.

Vireo carnioli, sp. n., from Costa Rica. S. F. Baird, *op. cit.* p. 356.

Vireo vicinior is described as a new species from Arizona, exactly similar to *Vireosylvia plumbea*, except that the white round the eye, the band on the wing, and the white edgings of the rectrices are faint or altogether wanting. The wing also is more rounded, and the proportions of the remiges different. E. Coues, Proc. Acad. Philad. p. 75; S. F. Baird, Rev. Am. B. p. 361.

Vireo pusillus is a new species from Cape St. Lucas and Arizona, in general appearance similar to *Vireosylvia gilva* and *V. swainsoni*, but smaller. E. Coues, Proc. Acad. Philad. 1866, p. 76; S. F. Baird, Rev. Am. B. p. 360.

Vireo latimeri is a new species from Porto Rico, having a grey head and neck as in *Vireosylvia josepha*, but with the wings shorter and differently proportioned, the brown cap and postocular stripe are wanting, and the light line from the bill only goes to the eye. S. F. Baird, *op. cit.* pp. 364, 365; H. Bryant, Proc. Bost. Soc. N. H. x. p. 252.

Vireonella is a proposed subgenus of *Vireo*, with *V. gundlachi* as its type. S. F. Baird, *op. cit.* p. 326.

Vireolanus eximius is a new species from Bogota, in colour precisely like *V. pulchellus*, but with a bright yellow stripe from the nostrils above and beyond the eye, a yellow infraocular spot, and dusky lores. It is *V. icterophrys*, Sclater (P. Z. S. 1855, p. 151, pl. 103, and 1857, p. 4), *nec* Bp. (C. R. xxxviii. p. 380). S. F. Baird, *op. cit.* pp. 308, 309.

Vireolanus melitophrys and *V. pulchellus* are figured, and a synopsis of the five known species given. P. L. Sclater & O. Salvin, Exot. Orn. pp. 13-16, pls. vii., viii.

Hylophikus pectoralis and *H. brunneiceps* are two new species from Southern Brazil: the first like *H. thoracicus*, but with a cinereous forehead, deeper yellow breast, and paler feet; the second does not resemble nearly any species of the group. P. L. Sclater, P. Z. S. 1866, pp. 321, 322.

TYRANNIDÆ.

A list of the species of this family, ten in number, found near Buenos Ayres is given. H. Burmeister, P. Z. S. 1866, p. 2.

SCLATER, P. L. Note on the Species of the genus *Muscisaxicola*. Ibis, 1866, pp. 56-57.

As noticed last year (Zool. Record, ii. p. 107), this paper consists of remarks on one by Messrs Philippi & Landbeck. The diagnostic characters of the nine species known to the author are very concisely indicated.

Muscisaxicola fluviatilis is a new species from the Ucayali, Eastern Peru, allied to *M. maculirostris*, but with a shorter and thicker bill, shorter tarsi,

distinct alar bands, and a white belly. P. L. Sclater & O. Salvin, P. Z. S. 1866, p. 187.

Serpophaga hypoleuca is a new species from the Ucayali, Eastern Peru, allied to *S. subcristatus* in form, but in colour nearer to *S. nigricans*. P. L. Sclater & O. Salvin, P. Z. S. 1866, p. 188.

Leptopogon pileatus is described as a new species from Guatemala. It is probably the *L. amaurocephala* of Sclater (Cat. Am. B. p. 213), but not of Cabanis (Orn. Not. i. p. 251), which comes from Brazil, and differs from that species in its longer wings, darker hood, and other points. J. Cabanis, J. f. O. 1865, p. 414 *.

Rhynchocyclus mesorhynchus is a new species from Guatemala, where it has hitherto passed for the Mexican *R. brevirostris*, with which it agrees in its lively colouring; but as regards the bill it closely resembles the Brazilian *R. olivaceus*. J. Cabanis, J. f. O. 1865, p. 414 *.

Megalophus [Muscivora] regius, with its nest and egg, is figured. C. F. Dubois, Archives Cosmologiques, 1867 [published in 1866], pp. 5, 6, pl. i.

Myiobius nationi is a new species from Peru, allied to *M. vieillotides*, but smaller, and body dusky above and tawny beneath. It is figured, as also *M. pulcher*, P. L. Sclater (P. Z. S. 1860, p. 404), from Ecuador. P. L. Sclater, P. Z. S. 1866, pp. 99, 100, pl. xi. figs. 1, 2.

Myiobius latirostris is a new species from New Granada, olive-brown above, rufescent beneath, with the throat paler and the rectrices edged with white. J. Verreaux, Nouv. Arch. Mus. ii. pp. 22, 23, pl. iii. fig. 2.

Empidonax cabanisi is described as a new species from Trinidad, but the way in which it differs from others of the genus is not precisely declared. A. Léotaud, Ois. Trinid. pp. 232, 233.

Empidonax pectoralis is described as a new species from Panama, closely allied to *E. minimus*, but with the pectoral band more strongly marked, the throat clearer grey, and the abdomen rather brighter yellow. G. N. Lawrence, Ann. Lyc. New York, 1866, p. 402.

"*Myiarchus fasciatus*, Landbeck," is a new species from Mendoza, with two white wing-bands and a black terminal band to the red tail. F. Leybold, J. f. O. 1865, pp. 402-404 *.

Tyrannus antillarum appears to be described as a new species from Porto Rico; its most striking character is the almost total absence of rufous from the tail. It is probably the unnamed *Myiarchus* of E. C. Taylor (Ibis, 1864, p. 169). H. Bryant, Proc. Bost. Soc. N. H. x. p. 249.

LANIIDÆ.

Lanius collurio, its mouse-catching habits. A. v. Homeyer, J. f. O. 1866, p. 71; V. v. Tchusi, *ibidem*, p. 212.

Lanius dubius is the name given to an apparent hybrid between *L. collurio* and *L. rufus*. Depierre, Bull. Soc. Orn. Suisse, 1866, pp. 31-36, pl. iv.

Lanius senator (sc. *auricularis* vel *rufus*) and *L. minor* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. figs. 1, 2.

Myiolestes vitiensis is a new species from the Feejees. G. Hartlaub, Ibis, 1866, p. 173.

Platylophus malaccensis is a new species from Malacca, in colour interme-

* Not published till 1866.

diate between *P. galericulatus*, from Java, and *P. ardesiacus*, from the Sunda Islands (?), which, together with *P. coronatus*, from Sumatra and Borneo, are carefully diagnosed. J. Cabanis, J. f. O. 1866, pp. 308-310.

CAMPEPHAGIDÆ.

Hemipus capitalis, McClell., considered by Dr. Jerdon to be identical with *H. picatus*, is a distinct species, and must be added to the Indian fauna. E. Blyth, Ibis, 1866, p. 368.

Graucalus mentalis and *G. hypoleucus* are figured. S. Diggles, Orn. Austral. part x.

POLLEN, F. On the genus *Oxyotus* of Mauritius and Réunion.

Ibis, 1866, pp. 275-280, pls. vii., viii.

The author comes to a conclusion differing from that announced in his former paper (Zool. Record, ii. p. 109). Each of the islands has its peculiar species of the genus. That of Mauritius *O. ferrugineus*, Q. & G. (nec *Lanius ferrugineus*, Gmel.), is on the whole larger than the other, and the male is above of a dark smoke-grey, but the female is always bright ferruginous beneath. In the Réunion species, to which the author applies the name *O. newtoni*, the male is above of a clear bluish-grey, and the female white, slightly tinged with ochre beneath, and barred thickly with dark brown on the sides. Both sexes of each species are figured, as well as the young of *O. ferrugineus*, for which last an editorial note suggests that Swainson's name *O. ruficenter* should be adopted, if that commonly in use be not admissible.

Colluriocincla harmonica and *C. rufigaster* are figured. S. Diggles, Orn. Austral. part vii.

MUSCICAPIDÆ.

Siphia hyperythra is described as a new species from Ceylon, differing from *S. strophciata* in the absence of the white forehead and superciliaries. [Qu. *Cyornis jerdoni* ♀ ?] The name *Menetioa* is proposed in place of *Siphia* for the genus. J. Cabanis, J. f. O. 1866, pp. 391-393.

Cyornis vivida, Swinh. (Zool. Record, i. p. 78), other specimens described and the type figured. R. Swinhoe, Ibis, 1866, p. 323, pl. xi.

Arses kaupi, *Myiagra plumbea*, and *M. nitida* are figured. S. Diggles, Orn. Austral. part x.

Monarcha albiventris is a new species from Cape York, differing from the South Australian *M. trivirgata* by the pure-white axillaries, abdomen, and lower part of the flanks, the black on the forehead and throat being more extensive, and more white on the exterior rectrices. J. Gould, P. Z. S. 1866, pp. 217, 218.

Monarcha carinata, *M. trivirgata*, and *M. leucotis* are figured. S. Diggles, Orn. Austral. part vi.

Rhipidura rufifrons, *R. albiceps*, *R. picata*, and *R. motacilloides* are figured. S. Diggles, op. cit. part iii.

Sisura inquieta and *Eopsaltria australis*, their mode of breeding described and eggs figured. E. P. Ramsay, Proc. Phil. Soc. Syd. 1865, pp. 325-327, pl. ii. figs. 6-8.

Micræa macroptera, its mode of breeding described and eggs figured. E. P. Ramsay, Proc. Phil. Soc. Syd. 1865, pp. 328, 329, pl. ii. figs. 9, 10.

Muscicapa melanictæra (Gmelin), its synonymy and bibliography most care-

fully given in detail. It is referred to the genus *Rubigula*, of the three other species of which a list is also given. Lord Walden, *Ibis*, 1860, pp. 316-323, 423, 424.

Muscicapula superciliaris, *M. æstigma*, *M. leucoschista*, and *M. ciliaris* differentiated. The second is plain blue above, white below, with no white on the tail. The third is like the first, but the white on the throat is broader, there is less blue on the sides of the breast, and no white on the rectrices. The fourth is of a darker and duller blue above, with white superciliaries, the greater wing-coverts and outer webs of the tertials white, as are also the entire under parts. The last two must be added to the Indian fauna, and there may possibly be a fifth species. E. Blyth, *Ibis*, 1863, p. 372.

"*Newtonia brunneicauda*, Pollen," is the name given to *Erythrosterina* (?) *brunneicauda*, A. Newton (P. Z. S. 1863, pp. 180, 181), but no generic characters are assigned. H. Schlegel, P. Z. S. 1866, p. 422.

TURDIDÆ.

Catharus griseiceps is a new species from Veragua allied to *C. melpomene*, but easily distinguishable, among other peculiarities, by its grey head. A list of the ten known species of the genus, showing their geographical distribution, is added. O. Salvin, P. Z. S. 1866, pp. 68, 69.

Turdus subcinereus is a new species probably from Chili, allied to *T. chiguanco*, but much smaller, with the breast faintly striated, and the under wing-coverts ashy-white, hardly tinged with fulvous. P. L. Sclater, P. Z. S. 1866, p. 320.

Turdus atrigularis has occurred near Münster. B. Altum, J. f. O. 1866, pp. 423, 424.

Turdus albiceps, Swinhoe (Zool. Record, i. p. 79) (*nec* Cuvier, *cf.* Pucheran, Arch. du Mus. vii. p. 341), is figured and its immature plumage described. R. Swinhoe, *Ibis*, 1866, p. 135, pl. v.

Turdus musicus and *Merula vulgaris* are figured. J. Gould, B. Grt. Br. part x.

Platycichla (Zool. Record, i. p. 79): the relations of this genus to *Myiadestes* and *Cichlopis* (both of which, though still retained among the *Ampelidæ*, should probably be referred to the *Turdidæ*) are considered. S. F. Baird, Rev. Am. B. pp. 408, 409, 417, and 436.

"*Kittacincla* [lege *Cittocinclæ*] *auricularis*, Swinhoe," (*cf.* Zool. Record, i. pp. 79, 80), is referred to the genus *Sibia*, and is figured. P. L. Sclater, *Ibis*, 1866, pp. 109, 110, pl. iv. (*fig. mala*).

Crateropus melanops is a new species from Damaraland, allied to *C. jar-dinii*. A geographical list of the twenty known species is appended. G. Hartlaub, P. Z. S. 1866, pp. 435, 436.

Cossypha heuglini is a new species from Keren, resembling in colour the much smaller *C. semirufa*, Rüpp. G. Hartlaub, J. f. O. 1866, pp. 36, 37.

Hypsipetes borbonica from Réunion is given as distinct from *H. ourouang*. [*Qu.* = *Turdus atricilla*, Puch. Arch. du Mus. vii. p. 340.] H. Schlegel, P. Z. S. 1866, p. 423.

Cinlocerthia macrorhyncha is a new species from St. Lucia, West Indies, to be distinguished from *C. ruficauda* of Nevis and Guadeloupe by the cinereous upper parts, and from *C. gutturalis* of Martinique by the paler colouring

beneath, and from both by the long, curved bill. P. L. Sclater, P. Z. S. 1866, pp. 320, 321.

Mimus [[?]] *carunculatus* is a new species from the north of New Zealand. It can scarcely belong to the genus to which it is assigned by the author. W. Buller, Ess. Orn. N. Zeal. p. 10.

Mimus polyglottus, var. *portoricensis*, differs from the normal form in the amount of white on the rectrices. H. Bryant, Proc. Bost. Soc. N. H. x. p. 251.

Pericrocotus, the species inhabiting the Indian Region are enumerated. E. Blyth, Ibis, 1866, p. 369, note.

Spizixus canifrons and *S. semitorques* are figured. J. Gould, B. Grt. Br. part xviii.

Ixus obscurus, its asserted occurrence in England. E. Newman, Zoologist, S. S. p. 228.

SYLVIIDÆ.

FATIO, VICTOR. Supplément au mémoire sur la distribution verticale des Sylviadées en Suisse. Bull. Soc. Orn. Suisse, 1866, p. 67.

An addition to the paper noticed last year (Zool. Record, ii. pp. 63 and 113), of two species to the number of those found in the Upper Engadine.

Saxicola [*Bessornis*] *albigularis*, v. Pelzeln (Sitzungsb. k.-k. Akad. Wissensch. 1863, description reprinted and remarks added. J. Cabanis, J. f. O. 1866, pp. 49-51.

Saxicola spectabilis, Hartl., P. Z. S. 1865, p. 428, pl. xxiii. (Zool. Rec. ii. p. 113), proves to be the same as *S. bifasciata*, Temm. Pl. Col. 472. P. L. Sclater, P. Z. S. 1866, p. 22, note.

Petræca fusca, *Drymodes superciliaris*, and *D. brunneopygia* are figured. S. Diggles, Orn. Austral. part. viii.

Motacilla sybilla, Linn., does not constantly differ from *M. [Pratincola] rubicola*; whether *Saxicola borbonica* should stand as a proper conspecies is doubtful. H. Schlegel, P. Z. S. 1866, p. 422.

Pratincola leucura and *Rhodophila melanoleuca* are figured. J. Gould, B. As. part xviii.

Cyanecula suecica, the specimen noticed last year (Zool. Record, ii. p. 114) continues its residence in the Isle of Wight. H. Hadfield, Zoologist, S. S. p. 172. Joined by a second, *Idem*, tom. cit. pp. 218, 341, 342, 445.

Ruticilla cairii, remarks on this supposed species. V. Fatio, Bull. Soc. Orn. Suisse, 1866, p. 105, 106.

Erythacus rubecula, from the Azores, has a light-coloured plumage exactly agreeing with specimens from North Africa and Southern Italy. F. D. C. Godman, Ibis, 1866, p. 95. It is figured. J. Gould, B. Grt. Br. part ix.

Gerygone assimilis is described as a new species from New Zealand, hardly distinguishable from *G. flaviventris*, although somewhat larger. The nests and eggs of the two, however, are quite different. W. Buller, Ess. Orn. N. Zeal. p. 9.

Gerygone personata is a new species from Cape York, Queensland. J. Gould, P. Z. S. 1866, p. 217.

Gerygone albigularis, its mode of breeding described. E. P. Ramsay, tom. cit. pp. 576, 577.

Acanthiza lineata, *A. nana*, and *A. pusilla*, their mode of breeding described, and the nest of the first figured. E. P. Ramsay, P. Z. S. 1866, pp. 571-575.

Geobasileus chrysorrhous and *G. reguloides*, their mode of breeding described. *Idem*, tom. cit. pp. 575, 576.

Pycnophilus floccosus, a second specimen of this rare bird obtained. E. P. Ramsay, Ibis, 1866, p. 419.

Prinia beavani is a new species from Tenasserim, most closely allied to the Indian *P. cinereocapilla*. Lord Walden, P. Z. S. 1866, p. 551.

"*Hemipteryx immaculata*, Hartlaub," is a new species from Windvogelberg, South Africa, differing in its unspotted surface from *H. textrix*, the only known species. P. L. Sclater, P. Z. S. 1866, p. 22.

Siphia inneza is described as a new species from Formosa, most nearly resembling *S. superciljaris*, but having the face and sides of the neck black, and most of the rectrices white at the base. R. Swinhoe, Ibis, 1866, pp. 394, 395.

Eroessa is a new genus from Madagascar, allied most nearly to *Camaroptera*, the curious structure of the wings and the proportionately large feet being the same in both. The type is

E. tenella; and woodcuts of the head, wing, and foot are given. G. Hartlaub, P. Z. S. 1866, pp. 218, 219; H. Schlegel, tom. cit. p. 422.

Orthotomus longicauda, note on its nidification, with a figure of the nest. A. Humbert, Bull. Soc. Orn. Suisse, 1866, pp. 55-66, pl. v.

Horeites robustipes is described as a new species from Formosa. R. Swinhoe, Ibis, 1866, p. 396.

Sylvia atricapilla, var. *heinekeni* (Jard.), seems to occur also in the Azores, where the same story of its origin is current as in Madeira. F. D. C. Godman, Ibis, 1866, pp. 95, 96.

Sylvia aquatica has occurred in England. A. Newton, P. Z. S. 1866, p. 210.

Calamoherpe palustris, observations on this species, especially with reference to the distinctions between it and *C. arundinacea* [sc. *strepera*]. V. Fatio, Bull. Soc. Orn. Suisse, 1866, pp. 37-46.

Hypolais salicaria is not only distinct from *H. polyglotta*, but is more nearly allied to the genus *Calamodyta*. [L. H. Jeitteles, Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1866, pp. 311, 314.

Locustella avicula (sc. *nævia*) and *Luscinia luscinioides* are figured. J. Gould, B. Grt. Br. parts ix., x.

Regulus cristatus, from the Azores, has a longer tail and stouter bill than British or South European examples, but agrees in all respects with a specimen from Eastern Asia. F. D. C. Godman, Ibis, 1866, p. 96.

MOTACILLIDÆ.

Enicurus (lege *Henicurus*) *maculatus*, *H. guttatus*, *H. chinensis* (lege *sinensis*), and *H. scouleri* are figured. J. Gould, B. As. part xviii. (Cf. Zool. Record, ii. p. 115.)

The different European races or species of *Motacilla* and *Budytes* are noticed. J. P. van Wickevoort Crommelin, N. T. D. iii. pp. 313-317.

Motacilla sulphurea from the Azores has a shorter tail than European specimens. F. D. C. Godman, Ibis, 1866, p. 96.

Budytes taivana, Swinhoe (P. Z. S. 1863, p. 334, and Ibis, 1863, pp. 309,

310), an undescribed (?) species from Formosa, again mentioned. R. Swinhoe, Ibis, 1866, p. 138.

Anthus richardi said to occur in Ceylon. W. W. Boulton, Zoologist, S. S. p. 32. Obtained in England. W. Machin, *tom. cit.* p. 209.

Anthus campestris and *A. arboreus* are figured. J. Gould, B. Grt. Br. part x.

TROGLODYTIDÆ.

Campylorhynchus brevipennis is described as a new species from Venezuela, having the bill as well as the wings proportionately short, the spots above large and conspicuous, those below very obscure. G. N. Lawrence, Ann. Lyc. New York, 1866, pp.

Campylorhynchus affinis is figured. D. G. Elliot, B. N. Am. part i.

Micrococcyus lusciniæ is described as a new species from Veragua allied to *M. philomela* from Vera Paz, but with an unbanded back, a whitish throat, the under parts not tinged with dusky, and a longer bill. It is the *M. philomela* of Lawrence (Ann. Lyc. New York, 1862, p. 467) and of Baird (Rev. Am. B. i. p. 114), but not of Salvin (P. Z. S. 1861, p. 202). A list giving the chief references to the seven known species of the genus is given. O. Salvin, P. Z. S. 1866, pp. 69-71.

Thryothorus martinicensis is a new species from Martinique resembling *Troglodytes furvus* in colour above, but with a longer bill and entirely rufescent below. P. L. Sclater, P. Z. S. 1866, p. 321.

SITTIDÆ.

Sitta krueperi, v. Pelzeln (Sitzungsb. k.-k. Akad. Wissensch. 1863), description reprinted and remarks added. J. Cabanis, J. f. O. 1866, pp. 49-51.

PARIDÆ.

Melaniparus semilarvatus is a new species from the Himalaya, much allied to the others of the genus, which are all African, but with the bill a little longer than in *M. leucomelas*. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Parus insperatus is a new species from Formosa, like *P. monticolus*, but smaller [and easily to be distinguished by its much blacker head]. R. Swinhoe, Ibis, 1866, pp. 308, 309.

Parus borealis, a few remarks additional to those in the paper noticed last year (Zool. Record, ii. p. 116). V. Fatio, Bull. Soc. Orn. Suisse, 1866, p. 68.

Poecile palustris is figured. J. Gould, B. Grt. Br. part ix.

Pachycephala gutturalis and *P. pectoralis* are figured. S. Diggles, Orn. Austral. part ii.

MALURIDÆ.

Atrichia rufescens is a new species, from the Richmond River, Australia, to be distinguished from *A. clamosa* from the West Coast by its smaller size and its rufous tint; it has also proportionately larger legs and claws. E. P. Ramsay, P. Z. S. 1866, pp. 438-440.

Malurus splendens, *M. lamberti*, *M. cyaneus*, *M. melanonotus*, and *M. longicauda* are figured. S. Diggles, Orn. Austral. part v.

Phlexis is a new genus showing a remarkable affinity to *Drymodes*, and to be distinguished by the great comparative length of the strongly graduated 1866. [VOL. III.]

tail, the very concave and weak wings, the scutellated tarsi and whole structure. The type is *Bradypterus victorini* of Sundevall (Zool. Anteckn. Victorin. p. 29, K. Svenska Vet.-Ak. Handl. 1860) from Knysna, in the Cape Colony; a second species is

Phlexis layardi from the George District of the Cape Colony (E. L. Layard, Ibis, 1866, p. 424), which is figured. G. Hartlaub, Ibis, 1866, pp. 139, 140, pl. vi.

TANAGRIDÆ.

Euphonia rufivertex is a new species from Veragua and Costa Rica, allied to *E. ruficeps*, but with the top of the head and the vent rufous-chestnut. O. Salvin, P. Z. S. 1866, pp. 71, 72, pl. vii. figs. 1, 2.

Calliste sclateri is a new species from Guatemala, belonging to the group of large species, but not very like any of them. The bill resembles that of *C. vireolina*, and stronger than that of *C. brasiliensis*. In colour above it resembles *C. cyanoescens*, and in the form of the feathers on the back and breast *C. cyanoptera* and *C. atricapilla*. J. Cabanis, J. f. O. 1866, pp. 163-165.

Pæcilothraupis atricrissa is a new species from Ecuador, very like the Peruvian *P. humulata*, for which it has been mistaken, but to be distinguished by its entirely black vent. J. Cabanis, J. f. O. 1866, p. 165.

Compsocoma cyanoptera is a new species from Ecuador, very like *C. sumptuosa*, but with the edges of the quills blue. *Idem*, tom. cit. p. 235.

Acroleptes violaceicollis is a new species from Brazil, much larger than others of the same group, having the hind head to the back, sides of the neck, and throat shot with deep violet, the white on the inner vanes of the exterior rectrices as in *A. chloroticus*. *Idem*, op. cit. 1865, p. 409*.

Phonasca brachyptera is a new species from Venezuela, intermediate in structure and colouring between *P. hirundinacea* from Central America and the New-Granadian *P. crassirostris*. *Idem*, tom. cit. pp. 410, 411*.

Tanagra (Spindalis) portoricensis appears to be described as a new species from Porto Rico. H. Bryant, Proc. Bost. Soc. N. H. x. pp. 252, 253.

Thraupis s. Tanagra sayaca and *T. cyanoptera* are perfectly distinct. The latter has a shorter, broader, and thicker bill, not a compressed one like the former and all other allied species. J. Cabanis, J. f. O. 1866, pp. 305, 306.

Tachyphonus albispecularis is re-described as a new species from Trinidad†, very nearly resembling *T. luctuosus*, Lafr. & d'Orb., but differing by being larger. A. Leotaud, Ois. Trinid. pp. 303, 301. (Positively identified with the latter from examination of a type specimen. P. L. Sclater, Ibis, 1867, p. 108.)

Tachyphonus schlagintweiti is described as a new species from Mexico, very like "*Saltator rubicoides*, Vieill.," but smaller, with a longer and more compressed bill, shorter tarsi, and of a paler red colour. J. W. von Müller, Reise in Mexico, iii. p. 572.

Thlypopsis : a synopsis of the species of this genus, to which *Pyrrhocomia* is referred, is given. J. Cabanis, J. f. O. 1866, pp. 231-233.

Chlorospingus postocularis is a new species from Guatemala, very like *C.*

* Not published till 1866.

† The original description is in Rev. et Mag. de Zoologie, 1864, pp. 129, 130, and was accidentally omitted from our first volume.

ophthalmicus, but having the whole crown and sides of the head blackish, with only a white postocular spot. J. Cabanis, J. f. O. 1866, p. 163.

PLOCEIDÆ.

Ploceus epilonotus ♀, Sig. Bianconi's description (Zool. Record, ii. p. 118) reprinted. Guérin-Ménéville, R. Z. 1866, p. 315.

"*Ploceus algondæ*, Pollen," is a new species from Mayotte, larger than *P. [Foudia] madagascariensis*, and its bill longer, head, breast, and upper tail-coverts orange, back olivaceous, beneath olive-grey, washed with yellow. H. Schlegel, P. Z. S. 1866, p. 423.

Textor galbula: notes on this species translated from Antinori's 'Catalogo' (Zool. Record, i. p. 48). G. Lunel, Bull. Soc. Orn. Suisse, 1866, pp. 98-100.

Emblema picta, a second specimen obtained and exhibited. J. Gould and W. Jardine, P. Z. S. 1866, p. 558.

FRINGILLIDÆ.

Cardinalis igneus is figured. D. G. Elliot, B. N. Am. part i.

"*Sporophila rufrostris*, Landböck," is a new species from Mendoza, with the bill, feet, and hind parts red. F. Leybold, J. f. O. 1865, p. 404*.

Spermophila ocellata is a new species from Nauta in Eastern Peru, allied to *S. bouvronoides*, but with an eyed breast. P. L. Sclater and O. Salvin, P. Z. S. 1866, p. 181.

Fringilla (Phonipara) zena, var. *portoricensis*, is intermediate between *P. omissa* from Tobago and the true *P. zena* from Bahama. H. Bryant, Proc. Bost. Soc. N. H. x. p. 254.

Amauospiza cærulatra is a new species from Brazil, the largest of the genus, to which *Oryzoborus unicolor* should also be referred. J. Cabanis, J. f. O. 1866, pp. 306, 307.

"*Phrygilus ornatus*, Landböck," is a new species from Mendoza, with two broad white and one black cross bands on the wings, and a white-spotted tail. F. Leybold, J. f. O. 1865, pp. 405, 406*.

Melospiza pectoralis is described as a new species from the highlands of Mexico. J. W. von Müller, Reise in Mexico, iii. pp. 583, 584.

Aimophila (lege Hæmophila) tolteca is described as a new species from Mexico. J. von Müller, Reise in Mexico, iii. p. 584.

Chamaespiza torquata, Sci. & Salv. (Ibis, 1860, p. 274, nec Sclater nec Du Bus, is *Pyrgisoma leucote*. The former has not been found in Guatemala. O. Salvin, Ibis, 1866, p. 205.

Atlapetes rubricatus is referred to the genus *Melospiza*, and further particulars of *M. biarcuata* are given. J. Cabanis, J. f. O. 1866, pp. 233-235.

Loxia curvirostra, its migration in Westphalia. B. Altum, J. f. O. 1866, pp. 286, 289.

Pyrrhula murina is a new species from St. Michael's in the Azores, large, mouse-coloured beneath, with a cinereous rump and very strong bill and feet. It is *P. coccinea* (!), Pucheran (R. Z. 1859, p. 413), nec De Selys-Longchamps. F. D. C. Godman, Ibis, 1866, pp. 97, 98, pl. iii. (fig. opt.).

Pyrrhula coccinea and *P. vulgaris*, remarks on. I. Demolle, Bull. Soc. Orn. Suisse, 1866, pp. 119-125.

* Not published till 1866.

Pyrrhula europæa, notes on its breeding. Karl Müller, Zoolog. Garten, 1866, pp. 397-403.

Procarduelis, a new species from the Parang Pass, is mentioned but left unnamed. F. Stoliczka, Proc. As. Soc. Beng. 1865, p. 39. (Cf. *Ibis*, 1866, p. 412.)

Ægiothus rufescens and *A. linaria* are figured. J. Gould, B. Grt. Br. part x.

Chrysomitris mexicanus, var. *arizonæ*, is discriminated as exhibiting, among other differences, a remarkable gradation towards the peculiar features of *C. psaltria*. E. Coues, Proc. Acad. Philad. 1866, p. 82.

Chrysomitris hypoxantha and *C. capitalis* are two new species, the first, from Bahia, very like *C. spinescens*, from Bogota, but smaller, with a stouter bill, the colours altogether brighter, and the speculum less; the second, from Ecuador, very like the Brazilian *C. icterica*, but has the head only black, the belly greyish, and the general colour lighter. J. Cabanis, J. f. O. 1866, pp. 160, 161.

Serinus hortulanus from the Azores is darker, stouter, and has stronger bill and legs than examples from North Africa and Sicily. F. D. C. Godman, *Ibis*, 1866, p. 98. It is again said to have occurred in England. G. D. Rowley, *tom. cit.* p. 215. Another reported instance of its occurrence. T. J. Monck, Zoologist, S. S. p. 229.

"*Buserinus rufilatus*, Hartl.," is a new species from Ilha do Principe, Bight of Benin. H. Dohrn, P. Z. S. 1866, p. 328; J. G. Keulemans, N. T. D. iii. pp. 393, 394.

Passer domesticus has been successfully established in the city of New York. G. N. Lawrence, Ann. Lyc. N. H. New York, 1866, pp. 287, 288. It also appears to thrive at Havanna. J. Gundlach, Rep. Fisico-Nat. de Cuba, i. p. 396.

Fringilla moreleti, Pucheran, peculiar to the Azores, its nest and eggs described. F. D. C. Godman, *Ibis*, 1866, p. 97.

Estrelda ruficauda, *E. temporalis*, and *E. phaeton*, with *Amadina castaneotis* and *A. lathamii*, are figured. S. Diggles, Orn. Austral. part i.

Suthora bulomachus is a new species from Formosa, where it is kept in captivity and used as a fighting-bird. R. Swinhoe, *Ibis*, 1866, 298-303, pl. ix.

EMBERIZIDÆ.

Emberiza hortulana has again occurred in England. Lord Clifton, Zoologist, S. S. p. 270. Figured. J. Gould, B. Grt. B. part ix.

Emberiza citrinella and *E. cirrus* are figured. J. Gould, *ut supra*.

ALAUDIDÆ.

Megalophonus ruficeps, Rüpp., is referred to the genus *Calandritis* (sc. *Calandrella*). J. Cabanis, J. f. O. 1866, pp. 307, 308.

Megalophonus rufocinnamomeus is a new species from Abyssinia. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Galerita cristata and *Melanocorypha calandra*. Spanish specimens seem to differ from those from other parts of Southern Europe—the former [qu. *G. thecla*, Brehm?] by being smaller and more rufous, the latter by being less distinctly marked. Lord Lilford, *Ibis*, 1866, p. 380. Figured. J. Gould, B. Grt. Br. part x.; C. J. Sundevall, pl. lxix. fig. 4.

ICTERIDÆ.

CASSIN, JOHN. A study of the *Icteridæ*. Proc. Acad. Philad. 1866, pp. 10-25, and 403-417.

The first of these papers treats of the subfamily *Agelæinae*, the second of *Quiscalinae*. Of *Agelæus* the author makes twelve species, of *Leistes* eight, of *Dolichonyx* five, *Molothrus* thirteen, and of *Sturnella* nine. Of *Quiscalus* seventeen species are distinguished, of *Scolecophagus* five, of *Idiopsar* (gen. nov.) and *Potamopsar* one, and of *Cassidix* four. Mr. Cassin, apparently with very good reason, refuses to recognize more genera in these groups. The synonyms of each species are carefully given, and a few other brief details added. The second paper contains also descriptions.

Dolichonyx fuscipennis is a new species from North-Eastern Brazil, is distinguishable from *D. badius* by its lighter colour, and especially its light-brown quills, edged only with red. J. Cassin, *ut supra*, p. 16.

"*Oriolus melancholicus*, Linn.," probably belongs to the genus *Dolichonyx*. *Idem*, *ut supra*, p. 16, note.

Molothrus cabanisi is described as a new species from Guiana and New Granada. It is possibly the *Lampropsar dives* of Cabanis (Mus. Hein. i. 194), but not of Bonaparte (Consp. Av. i. p. 425). It is easily distinguished from *L. tanagrinus* and *L. guianensis* by its much larger size and the golden-violet lustre of its plumage. *Idem*, *ut supra*, p. 22.

Molothrus rufoaxillaris is a new species from Buenos Ayres to be recognized by the reddish-chestnut axillaries. *Idem*, *ut supra*, p. 14.

Quiscalus aglæus is described as a new species from Florida, allied to *Q. purpureus* (*Q. versicolor*, Vieill.), but smaller, with a more pointed and decurved bill, and remiges differently proportioned. It is *Q. baritus* of Baird (B. N. Am. p. 556, pl. xxxii.) *nec* Linn. S. F. Baird, Am. Journ. Sc. & Arts, 1866, p. 84; J. Cassin, Proc. Acad. Philad. 1866, p. 404.

Quiscalus gundlachi is described as a new species from Cuba, allied to *Q. baritus* (Linn.) from Jamaica, with which it has been confounded by D'Orbigny and Gundlach, but a little smaller, with a more slender bill, comparatively longer tail, and more lustrous plumage. J. Cassin, *ut supra*, p. 406.

Quiscalus brachypterus is described as a new species from Porto Rico, resembling the species from Jamaica and Cuba, but smaller, with a more slender bill and shorter tail and wings. It is the *Q. baritus* of E. C. Taylor (Ibis, 1864, p. 168) *nec* Linn. *Idem*, *ut supra*, pp. 406, 407.

Quiscalus mexicanus is a new species from Mexico, most resembling *Q. lugubris* from Trinidad, but rather larger, and has the bill much stronger and more curved. *Idem*, *ut supra*, pp. 408, 409.

Quiscalus rectirostris is described as a new species from an unknown locality, easily recognized by its straight slender bill. *Idem*, *ut supra*, p. 409.

Idiopsar is a new genus, allied to *Quiscalus* and *Scolecophagus*. The tail is short, nearly even at the end, and emarginate. The wings long. General form short and compact; bill about as long as the head, strong, slightly curved, with the commissure much inflexed, culmen distinct. Legs and feet moderate. The type species is *I. brachyurus* from Bolivia. *Idem*, *ut supra*, p. 414.

Icterus —. A specimen is described as resembling *I. spurius*, but differing sufficiently to induce the opinion that it is a distinct species, but no name is conferred upon it. H. Shimer, Trans. Acad. Sc. St. Louis, ii. 1866, pp. 260, 261.

Icterus dominicensis, var. *portoricensis*, is easily recognized from the St. Domingo bird by the absence of yellow on the flanks, and the greater proportion of black on the rump and vent. H. Bryant, Proc. Bost. Soc. N. H. x. p. 254.

Ageleus phæniceus, asserted reoccurrence of it in England. T. J. Monck, Zoologist, S. S. p. 229. Its occurrence in Scotland. T. Edward, *tom. cit.* p. 310.

STURNIDÆ.

Sturnus vulgaris, its breeding in nest-boxes. Wiese, J. f. O. 1866, p. 420.

Sturnus roseus is figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. fig. 3.

Lamprocolius defilippii is a new species from Angola, belonging to that group of the genus containing *L. ignitus*, *L. splendidus*, and *L. lessoni* (cf. Hartlaub, J. f. O. 1859, pp. 13-16), from which it may be distinguished by its smaller size and somewhat differently distributed colours. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Creadion cinereus is a new species from New Zealand, of the size and form of *C. carunculatus*, but of a dark cinereous-brown, paler beneath, and tinted with umber on the wings, the quills being bright rufous. W. Buller, Ess. Orn. N. Zeal. p. 10.

Chlamydera maculata and *C. cerviniventris*, their heads figured. S. Diggles, Orn. Austral. part ix.

EPIMACHIDÆ.

Ptilorhis paradiseus (♂ and ♀) is figured. S. Diggles, Orn. Austral. part vi.

PARADISEIDÆ.

Paradisea papuana, notice of the examples lately living in London. F. Schlegel, Zoolog. Garten, 1866, pp. 99-101.

CORVIDÆ.

Caryocatactes guttatus [*Nucifraga caryocatactes*], observations on its habits. F. Boie, J. f. O. 1866, pp. 1-4.

Corvus corax, observations on its habits. G. Lunel, Bull. Soc. Orn. Suisse, 1866, pp. 5-29.

Corvus umbrinus and *C. affinis*, their specific validity maintained and illustrated by figures. H. B. Tristram, Ibis, 1866, pp. 70-73.

Corvus agricola, its habits described. *Idem*, *tom. cit.* pp. 66-68.

Corvus collaris, its history given. *Idem*, *tom. cit.* pp. 65, 66.

Corvus monedula is figured. J. Gould, B. Grt. Br. part ix.

Garrulus melanocephalus and *G. cervicalis*, their confused nomenclature explained. H. B. Tristram, Ibis, 1866, p. 62.

Cyanopica cooki, notes on its breeding in Spain, and its eggs figured. Lord Lilford, Ibis, 1866, pp. 174, 175, 382, 383, pl. x. figs. 3-8.

COLUMBÆ.

COLUMBIDÆ.

Mr. Wallace's paper (*Ibis*, 1865, pp. 365-400) noticed by us last year (*Zool. Record*, ii. pp. 121, 122) is partially translated into German by Dr. E. von Martens. *J. f. O.* 1866, pp. 269-285.

"*Columba chlorophæa*, Hartl.," is a new species from Ilha do Principe, Bight of Benin. H. Dohrn, *P. Z. S.* 1866, pp. 329, 330; J. G. Keulemans, *N. T. D.* iii. p. 395.

Columba ænas is figured. J. Gould, *B. Grt. Br.* part x.

Columba livia from the Azores has generally the plumage so dark that the band on the wings is invisible. F. D. C. Goodman, *Ibis*, 1866, p. 99.

Columba turtur (ad. & juv.) is figured. C. J. Sundevall, *Sv. Fogl. pl.* lxx. figs. 3, 4.

"*Peristera principalis*, Hartl.," is a new species from Ilha do Principe, Bight of Benin. H. Dohrn, *l. c.* p. 330; J. G. Keulemans, *l. c.* p. 396.

Phaps histrionica and *P. chalcoptera*, heads figured. S. Diggles, *Orn. Austral.* part iv.

Phlogœnas cruentus and *P. crinigera* are figured. J. Gould, *B. As.* part xviii.

Sphenocercus sororius and *Treron charoëatis* are described as new species from Formosa. The first had previously (*Ibis*, 1866, p. 122) been taken for the male of *S. formosæ*. The last is subsequently (p. 406) considered identical with the first. R. Swinhoe, *Ibis*, pp. 311-313.

Sphenocercus formosæ ♂, description of a supposed one. R. Swinhoe, *Ibis*, 1866, p. 122.

Carpophaga perspicillata, Wallace, is proposed to be called *C. neglecta*, the true *C. perspicillata*, Temminck, being *C. temmincki*, Wallace (*Zool. Record*, ii. p. 123). H. Schlegel, *N. T. D.* iii. p. 344.

Carpophaga magnifica, head figured. S. Diggles, *Orn. Austral.* part x.

Ptilopus helviventris and *Rhynchaenas schlegeli*, von Rosenberg, *Tijdschr. Nederl. Indië*, 1866, are respectively identified with *Peristera rufipila*, Pucheran, and *Henicophaps albifrons*, Gray. H. Schlegel, *N. T. D.* iii. p. 345.

Ptilopus superbus is figured. S. Diggles, *Orn. Austral.* part viii.

Geotrygon veraguensis is a new species from Veragua remarkable for its dark colours, which contrast strikingly with the white front and subocular stripe, and for its long and robust legs. G. N. Lawrence, *Ann. Lyc. New York*, 1866, pp.

DIDUNCULIDÆ.

FINSCH, OTTO. Ueber das Jugendkleid und die generischen Kennzeichen des *Manu-mea* (*Didunculus strigirostris*, Jardine). *Journ. für. Orn.* 1866, pp. 37-41.

The author has examined two specimens of this singular form, one of them preserved in spirit, and gives very minute descriptions and measurements. Its systematic place is next to *Treron*.

Didunculus strigirostris, according to Dr. Graefe, does not live on the ground, but on large trees, in company with *Ptilinopus mariæ* and *P. casarinus*, and feeds on fresh fruit. A. E. Brehm, *J. f. O.* 1866, pp. 388, 389. Figured from the living bird lately in the Zoological Gardens (*Zool. Record*, i. p. 87), and skeleton described and figured. R. Owen, *Memoir on the Dodo*, pls. ii. (*figg. pessimæ*), iii. fig. 2.

DIDIDÆ.

CLARK, GEORGE. Account of the late discovery of Dodos' Remains in the Island of Mauritius. *Ibis*, 1866, pp. 141-146. (Translated in *Ann. Sci. Nat.* 1866, vi. pp. 19-24.)

This discovery was briefly mentioned by us last year (*Zool. Record*, ii. p. 124). The attention of the author was first directed to the spot in September 1865; and by sending men to wade in the marsh called "La Mare aux Songes," near Mahébourg, he obtained a very large number of bones. These, having been sent to England and Réunion, furnished the material of the researches of Prof. Owen, M. A. Milne-Edwards, and Messrs. Gervais and Coquerel, to be immediately mentioned. There was a larger proportion of tarso-metatarsi than of other bones; next in quantity were tibiae and pelves, after which came femora. Sterna were fewer in number, but more numerous than humeri or coracoids, than which last also scapulæ were more plentiful. Vertebrae were in considerable abundance; crania were very rare, and some perfect, but mandibulæ in considerable numbers. Maxillæ were extremely rare; one coracoid was found entire with the furcula and scapula (all anchylosed together), and several to which the last was attached. Of ulnæ and radii only four were found, and one metacarpus; but this is not mentioned by Prof. Owen. With the Dodos' bones were discovered those of tortoises, deer, pigs, and monkeys, besides those of several species of birds (*vide supra*, PSITTACIDÆ). The Mare aux Songes is a marsh of four or five acres, situated at the bottom of a ravine which drains some 200 acres. It is cut off from the sea by low sandhills and basaltic rocks. It is overspread with a luxuriant growth of vegetation, and the lands around it were covered with thick forests at the beginning of the present century. (Cf. *Ibis*, 1867, p. 128; *Zoologist*, S. S. pp. 97, 99.)

OWEN, RICHARD. Memoir on the Dodo (*Didus ineptus*, Linn.), with an Historical Introduction by the late WILLIAM JOHN BRODERIP. London: 1866. 4to, pp. 55, pls. xii.

This work, which, we believe, has only been issued for private circulation, consists of three reprints (1) of the greater part of the article "Dodo" contributed by Broderip to the 'Penny Cyclopædia' (vol. ix. pp. 47-55), (2) of two supplementary papers by the same writer in the 'Transactions of the Zoological Society' (vol. iv. pp. 183-186, and pp. 197-199), and (3) of a paper read by Prof. Owen, 9th Jan. 1866, which has since (1867) appeared in the same 'Transactions' (vol. vi. pp. 49-85). No reference is made to the additional evidence adduced by Strickland in his well-known work ('The Dodo and its Kindred,' London: 1848) or elsewhere. The first and second portions of this memoir, having been originally published so long ago as 1837 and 1859, we do not propose to remark on here; but we

are glad to take the present opportunity of noticing the third portion (which would otherwise have to stand over until next year), so as to give an idea of the author's views, which may be compared with those of other writers on the same important subject during the last twelve months.

After referring to the determination by Prof. Reinhardt, in 1843, of the Columbine affinities of the Dodo, and stating the circumstances under which a fine series of its bones, discovered in 1865 by Mr. G. Clark (Zool. Record, ii. p. 124, and *suprà* p. 104), came into the possession of the British Museum, Prof. Owen proceeds to describe these in detail. As it would be obviously impossible to insert here an abstract of this part of the work, it must suffice to say that all the available portions of the skeleton, vertebræ, ribs, pelvis (imperfect), sternum (imperfect), scapular arch (furcula imperfect), bones of the wing (wanting the carpal portion), and of the legs and skull, are minutely described in the precise method for which the author is so justly celebrated. The small size of the brain-cavity, and especially of that which held the cerebrum, is particularly dwelt upon; and it is suggested, on Lamarck's principle, that the wings of this bird, exempt from enemies and with abundance of food, might in a long course of generations suffer atrophy, while the hind limbs through increased exercise might endure hypertrophy. In like manner, without any stimulus to the growth of cerebrum proportionate to the gradually accruing increase of body, the species might go on feeding and breeding in a lazy stupid fashion. The cerebellum, which has to do with muscular action, shows, as might be expected, some increased development.

A careful comparison of the skeleton of *Didus* with that of other genera, *Didunculus*, *Goura*, the *Struthionæ*, *Vulturidæ*, and many *Grallæ*, which occupies many pages, tends to render more instructive and convincing, in Prof. Owen's opinion, the affinities of the first to the *Columbæ*. The extinction of *Didus* is attributed to what he, in opposition to Strickland and Melville, considers its degenerate or imperfect structure. Such, then, is a necessarily brief, and, we fear, a very imperfect abstract of this remarkable work, especially remarkable because it furnishes us, in a more complete form than has hitherto appeared, with some of the author's views on the general question of the origin of species. Of the plates it contains, one gives copies of three pictures of *D. ineptus* by Roelandt Savory, which have before been engraved. A second contains representations of *Didunculus*; and the remainder illustrate the osteology of the former. One of these shows a tracing in outline of the *full-sized* picture of the Dodo in the British Museum *as large as the original*, and the skeleton restored contained in it. (Cf. P. Z. S. 1866, pp. 4, 5.)

GERVAIS, P., et COQUEREL, CH. Sur le Dronte, à propos d'os

de cet oiseau récemment decouverts à l'île Maurice. Extrait in Compt. Rend. lxii. 23 Avril, 1866, pp. 924-928, 1017; Rev. et. Mag. de Zool. 1866, pp. 209-215.

The specimens forming the subject of this memoir were sent to the museum at Réunion by Mr. Clark (*vide supra*). The authors believe that the difference between *Didus* and *Pezophaps* was more than generic, and consequently much greater than is usually supposed. Though perceptibly different from that of the *Vulturidæ* or other *Accipitres*, the Dodo in its sternum approached these birds more than any others, *Ciconia* excepted; and they regard it as constituting a distinct family allied to the Vultures, as well as to certain *Gallinæ* and *Grallæ*. This assignment also is not contradicted by the characters of the pelvis, which, though it offers incontestable analogies with that bone in the *Columbidæ*, *Otididæ*, and *Ciconiidæ*, yet has an evident resemblance to that of the *Vulturidæ*.

MILNE-EDWARDS, ALPHONSE. Remarques sur les ossements de Dronte (*Didus ineptus*) nouvellement recueillis à l'île Maurice. Extrait in Compt. Rend. lxii. (23 Avril, 1866) pp. 929-932, 1092; Ann. Sci. Nat. 1866, v. pp. 355-380, pls. 13-17*; Rev. et. Mag. de Zool. 1866, pp. 215-219; (translated in Ann. & Mag. Nat. Hist. 3rd ser. 1866, xvii. pp. 473-475).

After some introductory observations, the author describes in much detail some specimens of Dodos' bones, bought in London, the fruits of Mr. Clark's recent discovery, as already mentioned by us. In the author's opinion, the pelvis of this bird is one of the most remarkable parts of it: while in certain respects it resembles that of the *Columbidæ*, it is distinguished therefrom by important characteristics, which are not of the kind evinced by the terrestrial members of that family. The sternum also he considers very unpigeon-like, and concludes by saying that *Didus* must not be regarded as a walking pigeon, that it cannot enter the *Columbidæ*, but must be arranged alongside of them in a group of the same value. In some "Addenda" to the paper, as read before the Academy of Sciences, he combats the opinions expressed by Messrs. Gervais and Cocquerel as to the Dodo's affinities, and declares that it only presents few resemblances to the *Vulturidæ*, and these without anatomical or physiological importance. The specimens at M. A. Milne-Edwards's disposal are far inferior to those at Prof. Owen's, both in number and condition; but the plates representing them are executed in a manner as superior.

Didus ineptus: a notice of the bones recently discovered by Mr. G. Clark, and of the discussion in the French Academy consequent thereon. R. Meyer, Zoolog. Garten, 1866, pp. 352-354.

Didus ineptus [P]: a supposed original drawing representing this bird as

* Also published separately. Paris: 1866. 4to, pp. 28, pls. 5.

being nearly white was exhibited. W. B. Tegetmeier, P. Z. S. 1866, p. 201.

GALLINÆ.

CRACIDÆ.

AQUARONE, P. Notice complémentaire sur l'éducation des Hocco. Bull. Soc. Imp. d'Acclimat. 1866, pp. 25-28.

In addition to the paper by the same author noticed last year (Zool. Record, ii. p. 125).

Penelope greysi is a new species from New Granada, most nearly allied to *P. nigricollis*. G. R. Gray, P. Z. S. 1866, p. 203, pl. xxii.

Ortalis maccalli breeds with the common fowl; and the hybrids are considered far superior to ordinary game-cocks for fighting-purposes. H. E. Dresser, Ibis, 1866, pp. 24, 25.

PHASIANIDÆ.

SAURIN, DUDLEY E. Notice on the Pheasants found in the Neighbourhood of Pekin. Proc. Zool. Soc. 1866, pp. 436-438.

Phasianus torquatus, *P. reevesi*, *Pucrasia xanthospila*, and *Crossoptilon aurtum* are the species mentioned. *C. manchuricum*, Swinhoe, is considered identical with the last.

Lophophorus lhuysi is a fine new species, sent from Hankow, larger and with a longer bill and stouter legs than *L. impeyanus*, the rectrices with blue reflexions, and the head crestless, but the feathers of the nape slightly elongated. A. Geoffroy St. Hilaire, Bull. Soc. Imp. d'Acclimat. 1866, pp. 222, 693.

Phasianus scintillans is supposed to be a new species from Japan, closely related to *P. sammeringi*, but differing therefrom in the feathers of the notæum being broadly margined with white, their crimson tips far more fiery, the ground-colour of the tail being cinnamon-brown, and its narrow bars greyish white. J. Gould, Ann. & Mag. N. H. 3rd ser. xvii. p. 150. Considered to be a variety, or the representative form of *P. sammeringi*, the first coming from Yokohama, and the last from Simoda. P. L. Sclater, P. Z. S. 1866, p. 210.

Phasianus pictus obscurus (Zool. Rec. i. p. 88) is supposed to come from Java. F. Schlegel, Zool. Garten, 1866, pp. 136, 137.

Thaumalia picta and *T. amherstiae* figured. J. Gould, B. As. part xviii.

Euplocamus prælatus, notes and observations upon. R. Germain, R. Z. 1866, pp. 260-262; Bull. Soc. Imp. d'Acclimat. 1866, pp. 623, 624.

Polyplectron germaini is a new species, from Cochin China, most like *P. chingis*, but easily distinguished by its darker hue and very different coloration of its ocellations, which are far more brilliant and rich in the new bird. D. G. Elliot, Ibis, 1866, p. 56.

A supposed hybrid between *Numida meleagris* and *Gallus domesticus*, var. *cochin-chinensis*, noticed. R. von Willemoes-Suhm, J. f. O. 1865, p. 433.

Meleagris gallopavo is still met with in various localities in Canada and is figured. W. Ross King, Sportsm. and Nat. in Canada, p. 135.

TETRAONIDÆ.

Tetrao urogallus still exists in Northern Spain. Lord Lilford, Ibis, 1866, pp. 383, 384.

Perdix saxatilis and *P. petrosa*. M. Olph-Gaillard's paper on hybrids between these two species (Zool. Record, ii. p. 126) reprinted. R. Z. 1866, pp. 78-80. Further remarks on this paper, in which it is suggested that *P. syriaca* [cujus?], and not *P. saxatilis*, was one of the parents. Barthélemy Lapommeraye, *tom. cit.* pp. 271, 272. Notice of other hybrids, G. Lunel, Bull. Soc. Orn. Suisse, 1866, p. 110.

Perdix montana: observations on this supposed species lead to the opinion that it is but a strongly marked variety of *P. cinerea*. W. Hartmann, Zoolog. Garten, 1866, pp. 332-335.

Perdix cinerea is said to occur in Northern Spain. Lord Lilford, Ibis, 1866, p. 384.

Coturnix fornasinii, Sig. Bianconi's description (Zool. Record, ii. p. 126) reprinted. Guérin-Méneville, R. Z. 1866, p. 316.

Lophortyx gambeli, observations on its habits from field-notes. E. Coues, Ibis, 1866, pp. 48-55. The young described, *Idem*, Proc. Acad. Philad. 1866, p. 94. Its range inoculates with that of *L. californica* about the "sink" of the Mojave River. *Idem*, Ibis, 1866, p. 265.

PTEROCLIDÆ.

Syrhaptus paradoxus, a single example frequently observed in October 1865 (!) at Kalksburg in Lower Austria. Victor von Tschusi (*vide* Prof. Dichtl), Zoolog. Garten, 1866, p. 390. Not polygamous, — Quistorp, J. f. O. 1866, p. 144. Figured (♂ and ♀), H. Stevenson, B. Norf. pl. ii.

Pterocles alchata has bred in the Zoological Gardens, and the young is figured. A. D. Bartlett, P. Z. S. 1866, p. 78, pl. ix. fig. 2.

TURNICIDÆ.

Turnix sylvatica is supposed to have occurred again in England. J. Gould, P. Z. S. 1866, p. 210.

MEGAPODIIDÆ.

Megapodius tumulus, head figured. S. Diggles, Orn. Austral. part i.

TINAMIDÆ.

The entirely Struthious structure of the skull in this family is again (Zool. Record, i. p. 59) strongly insisted on. W. K. Parker, Phil. Trans. 1866, pp. 113-183. (See under the heading "ANATOMY AND PHYSIOLOGY.")

GRALLÆ.

RALLIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 8^{me} Livraison. RALLI. Leyde: 1866. Royal 8vo, pp. 77-80.

Completes the portion noticed last year (Zool. Record, ii. p. 128), and contains an enumeration of about eighty specimens received since that was printed.

Rallina tricolor has occurred near Cape York, North Australia. J. Gould, P. Z. S. 1866, p. 218.

Rallina paciloptera is a new species from the Feejees, to be distinguished at first sight by its ferruginous remiges, marked with narrow black bars, the first and second having the outer webs blackish. G. Hartlaub, Ibis, 1866, pp. 171, 172.

Rallus hoeveni, von Rosenberg, Tijdschr. Nederl. Indië, 1866, is identified with *Rallina plumbeiventris*, Gray. H. Schlegel, N. T. D. iii. p. 349.

Porzana pygmaea has again bred in England. J. Overend, Zoologist, S. S. pp. 389, 390.

Rallus featherstonii is described as a new species from New Zealand. W. Buller, Ess. Orn. N. Zeal. p. 18.

Gallinula (Leguatia) gigantea, an extinct species, formerly inhabiting Mauritius, perhaps also Réunion, and once accidentally met with on Rodriguez, founded on "Le Géant" of Leguat, by whom it was observed in 1694. H. Schlegel, Ibis, 1866, pp. 146-168, figs.; Ann. Sc. Nat. 5^{me} sér. 1866, vi. pp. 25-49, pl. 1. figs. 1, 2.

Porphyrio (Notornis?) caerulescens, an extinct species, formerly inhabiting Réunion, and observed there between 1669 and 1672, founded on the "Oiseau bleu" of Du Bois. H. Schlegel, Ibis, 1866, pp. 146-168; Ann. Sci. Nat. 5^{me} sér. 1866, vi. pp. 25-49.

Porphyrio hyacinthinus, its occurrence in England. H. Reeks, Zoologist, S. S. p. 229.

Porphyrio bellus, head figured. S. Diggles, Orn. Austral. part iii.

Porphyriops leucopterus is a new species, from the Argentine Republic and (P) Buenos Ayres; it is very like *Crex femoralis*, Tschudi, but smaller, with the tertials next the back conspicuously edged with white both inside and out. A list of the synonyms of *P. femoralis* is also added. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Gallinula pyrrhorhoa, A. Newton (P. Z. S. 1861, pp. 18, 19), is identified with *G. chloropus*. H. Schlegel, P. Z. S. 1866, p. 425.

SCOLOPACIDÆ.

Scolopax rusticola has occurred in New Jersey. G. N. Lawrence, Ann. Lyc. N. H. New York, 1866, p. 292. Is figured, with nestlings. J. Gould, B. Grt. Br. part x. Observations on its mode of carrying its young. R. von Bischofshausen, Zoolog. Garten, 1866, pp. 187-191.

Scolopax australis and *Rhynchaea australis* are figured. S. Diggles, Orn. Austral. part v.

Tringa maritima is supposed to breed in the Azores. F. D. C. Godman, Ibis, 1866, pp. 101, 102.

Tryngites rufescens has occurred in Ireland. H. Saunders, Zoologist, S. S. p. 389. H. Blake-Knox, *tom. cit.* p. 457.

Phalaropus fulicarius occurred in great numbers in England in September 1866. *Auctt. varr.* Zoologist, S. S. pp. 499-501, 525, 526. Is figured in both summer and winter plumage. J. Gould, B. Grt. Br. part ix.

Lobipes hyperboreus, with young, is figured. J. Gould, *ut suprâ*.

Tringoides hypoleuca stated to occur in Trinidad as well as *T. macularia*. The latter in winter plumage has probably been mistaken for it. A. Léotaud, Ois. Trinid. pp. 458-460 and 462, 463.

Numenius microrhynchus is described as a new species from Chili. It may, however, be identical with *N. brevirostris*, Cuvier. R. A. Philippi and L. Landbeck, Arch. f. Naturgesch. 1866, ii. pp. 129-132.

Actiturus bartramius has again occurred in England. W. K. Bullmore, Zoologist, S. S. pp. 37-40.

CHARADRIIDÆ.

HARTLAUB, G. Synopsis of the genus *Cursorius*. Proc. Zool. Soc. 1866, pp. 61, 62, pl. vi.

A synonymatic list of the nine species of the genus, two of which, however, have not been examined by him. *C. bisignatus* (Zool. Rec. ii. p. 132) is figured.

Cursorius gallicus is figured. J. Gould, B. Grt. Br. part x.

Edicnemus indicus and *Æ. ornatus* are described as new species. The first is the *Æ. crepitans*, auctt., from India (*nec* Temm.), but it has longer tarsi, a longer and stronger bill, shorter wings than its European relative, besides the under tail-coverts of a pale fawn-colour. The second, which is from Abyssinia, Sennaar, and Kordofan, is very like *Æ. crepitans*, between which and *Æ. capensis* it is intermediate, but has no white alar band, and is marked above and on the breast with longitudinal umber streaks: the bill is long and strong. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Streptilas interpretis is figured. J. Gould, B. Grt. Br. part. ix.

Chætusia leucura, observations on its natural history. A. E. Brehm, J. f. O. 1866, pp. 386-391.

Deflippiia is a genus proposed for the reception of "*Chætusia crassirostris*, De Filippi," Hartlaub (J. f. O. 1855, p. 427). Its principal characters are:—a thick, strong, and straight bill, shorter than the head; wings as in *Chætusia*, but armed with a sharper spur; tail square, feet stout, toes very long, exceeding two-thirds of the tarsus, hallux reaching the ground, claws sharp and somewhat long. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Eudromias australis and *Erythrogonyx cinctus* are figured. S. Diggles, Orn. Austral. part vi.

Podasocys is a new genus established for the reception of *Charadrius montanus*, Towns.; it differs from *Ægalites*, to which the species is generally referred, in its very short square tail, long bare tibiæ, very long tarsi, and short toes, and otherwise. E. Coues, Proc. Acad. Philad. 1866, p. 96.

Podasocys montanus is figured. G. D. Elliot, B. N. Am. part ii.

OTIDIDÆ.

Otis tarda, further particulars of its gular pouch. W. B. Tegetmeier, Zoologist, S. S. p. 144; W. H. Flower, *op. cit.* p. 189. Dr. Cullen's paper (Zool. Record, ii. p. 133) translated by A. Humbert, Bull. Soc. Orn. Suisse, 1866, pp. 90-92.

Sypheotides auritus is figured. J. Gould, B. As. part xviii.

ARDEIDÆ.

Ardea xanthopoda, Pelzeln, and *A. elegans*, J. Verreaux, are identified with *A. garzetta*; *A. ruficrista*, J. Verreaux, with *A. ibis*; and *A. idæ*, Hartlaub, with *A. leucoptera*. H. Schlegel, P. Z. S. 1866, p. 425.

Ardea: the species of the genus found in the Aru Islands enumerated and variously referred. H. Schlegel, N. T. D. iii. p. 348.

Ardetta flavicollis and *Herodias plumifera*, heads figured. S. Diggles, Orn. Austral. parts iii., iv.

Buphus comatus is figured. J. Gould, B. Grt. Br. part x.

Gorsachius goisaki, description of the young. R. Swinhoe, Ibis, 1866, pp. 122, 123.

CICONIIDÆ.

Mycteria australis is figured. S. Diggles, Orn. Austral. part v.

PALAMEDEIDÆ*.

Chauna nigricollis (cf. Zool. Record, i. p. 93) is identical with *C. derbiana*, P. L. Selater, P. Z. S. 1866, pp. 369, 370. The locality for the original specimen of the latter was not Guatemala, but no doubt New Granada. T. J. Moore, *op. cit.* pp. 368, 369. Inhabits Trinidad, W. Huggins, *op. cit.* p. 417.

AVIS INCERTÆ SEDIS.

Eurypyga helias, its eggs and young described, and the latter, which much resembles those of Plovers or Snipes, figured. The nearest ally of the bird is *Rhinocetus* as previously (P. Z. S. 1862, p. 218) stated. A. D. Bartlett, P. Z. S. 1866, pp. 76-78, pl. ix. fig. 1.

ANSERES.

ANATIDÆ.*

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 8^{me} Livraison. ANSERES. Leyde: 1866. Royal 8vo, pp. 108.

This portion of the work is to include the genera *Mergus*, *Biziura*, *Fuligula*, *Anas*, *Cygnus*, *Dendrocygna*, *Anser*, and *Phœnicopterus*, the first six of which are completed. The *Anatidæ* having met with much more attention at the hands of authors than many of the other groups of which Prof. Schlegel has treated; their synonymy is in a less confused state. There is consequently less novelty in his determinations of their species, and we do not think it necessary here to go into further details respecting this conscientious performance.

SCLATER, P. L. Additional notes on the *Anatidæ* of the Genera *Dendrocygna* and *Tadorna*. Proc. Zool. Soc. 1866, pp. 148-150.

The papers to which these remarks are supplementary were noticed in our first volume (p. 94). *Dendrocygna vagans* and *D. fulva* have now been seen by the author, and, with *D. major*, their peculiar distribution in the tropics is pointed out. *Tadorna variegata* has bred in the Society's Gardens.

Leptotarsus eytoni captured at Port Macquarie, New South Wales. G. Bennett, P. Z. S. 1866, pp. 417, 418.

Cereopsis novæ-hollandiæ, observations on it in confinement. C. de St. Gerlach, Zoolog. Garten, 1866, pp. 170-173. Figured, S. Diggles, Orn. Austral. part ix.

Chen albatrus is figured. D. G. Elliot, B. N. Am. part ii.

Sarcidiornis africana is recommended for acclimatization in Réunion. F.

* We have become quite convinced of the truth of Mr. Parker's opinion (Zool. Record, i. p. 93) as to the systematic position of this family, and, should we have occasion to mention it next year, we shall place it next to *Anatidæ*.

Pollen, Bull. Soc. d'Accl. et d'Hist. Nat. de la Réunion. *Idem*, Mém. Scient. pp. 6-11, and N. T. D. iii. pp. 322-324.

Anseranas melanoleuca is figured. S. Diggles, Orn. Austral. part vii.

Tadorna radjah, head figured. S. Diggles, Orn. Austral. part ii.

Anas boschas and *A. acuta*: a hybrid presenting some characters of both of these species, and probably having its parentage from them, though differing from previously described examples, is noticed, as well as one bearing traces of a cross between the first and *A. clypeata*. J. P. van Wickevoort Crommelin, N. T. D. iii. pp. 309-312.

Anas zonorhynchus is the name proposed for a species from Formosa and China, hitherto confounded, both by the author (P. Z. S. 1863, p. 324) and Temm. & Schl. (Faun. Jap. p. 126, pl. 82), with *A. paccilorhyncha*, which it resembles in coloration, but has an ochreous band across the bill. R. Swinhoe, Ibis, 1866, p. 394. (Cf. Ibis, 1867, pp. 176, 207.)

Querquedula bernieri, J. Verreaux, is identified with *Anas assimilis*, Forster. H. Schlegel, P. Z. S. 1866, p. 426.

Anas glochitans and *A. falcata*: descriptions of, notes on, and synonymy of these species. J. Vian, R. Z. 1866, pp. 401-410.

Malacorhynchus membranaceus is figured. S. Diggles, *op. cit.* part vi.

Heteronetta is a genus proposed for the reception of *Anas melanocephala*, Vieillot (N. Dict. v. p. 163), having the characters of *Anas*, but with the tip of the bill greatly incurved and narrower, short wings, wanting the speculum, very short tail, narrow, somewhat stiff rectrices, tarsi and toes moderate, claws sharp, and the plumage much as in *Erimaturus*. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Somateria thulensis is the name by which the Spitsbergen form of *S. mollissima* is distinguished. The characters by which it is discriminated were previously given (Efvers. K. Vet.-Akad. Förh. 1864, pp. 399-401, and J. f. O. 1865, pp. 214-216), but the bird was then regarded only as a variety. A. J. Malmgren, J. f. O. 1865, p. 396*.

Bucephala islandica is figured. D. G. Elliot, B. N. Am. part ii.

Mergus castor and *M. albellus* are figured. J. Gould, B. Grt. Br. part ix.

LARIDÆ.

BLASIUS, J. H. Kritische Bemerkungen über Lariden. Journ. für Orn. 1865, pp. 369-384, and 1866, pp. 73-88.

The author admits eighty-four species as well established, a number considerably less than do either Bruch (J. f. O. 1853, pp. 96-108, 1855, pp. 273-292) or Dr. Coues (Proc. Acad. Philad. 1862, pp. 291-312, 535-559, and 1863, pp. 121-138), when the limits to which they restricted their labours are regarded. Nevertheless two species of *Sterna* seem to be described as new. Prof. Blasius also cuts down the number of genera with which the group has been loaded, only recognizing twenty-seven. He does not go very deeply into synonymy, only giving sufficient to bring together the species recognized as distinct by other authors but which he thinks identical. A table showing the geographical distribution of the members of the family is given, from which

* Not published till 1866.

it appears that Europe possesses 27, North Asia 28, Africa 26, India 23, Australia 22, North America 35, and South America 23 species, accidental stragglers not being counted.

*Stercorarius tephra*s is described as a new species from Spitsbergen. It is the *S. parasiticus* of former writers on the ornithology of that country, and was previously regarded as a variety of that species (Erfvers. K. Vet.-Akad. Förh. 1864, pp. 390, 391, and J. f. O. 1865, pp. 205, 206) when the differential characters were pointed out. A. J. Malmgren, J. f. O. 1865 pp. 391, 392*.

Stercorarius parasiticus observed swimming. H. Whitely, Ibis, 1866, p. 127; E. L. Layard, *op. cit.* p. 220.

Lestris catarrhactes is figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. fig. 3.

Lestris. A species considerably larger than *L. antarcticus* has been found on the coast of Otago, New Zealand, but is not named. W. Buller, Ess. Orn. N. Zeal. p. 20.

Larus glaucus is figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. fig. 2.

Pagophila eburnea is figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. fig. 1. Discovery of its egg several years ago on one of the Polynia Islands by Sir L. M'Clintock (figure in Journ. R. Dublin Soc. 1856, i. pls. 1, 2). E. P. Wright, Ibis, 1866, pp. 216-218.

Larus tridactylus. Notes on its natural history and changes of plumage. H. Blake-Knox, Zoologist, S. S. pp. 518-522.

Larus sabini has again occurred in England, E. H. Rodd, Zoologist, S. S. p. 501. Also in Ireland, H. Blake-Knox, *tom. cit.* p. 526. Figured, J. Gould, B. Grt. Br. part ix.

Larus ridibundus, notes on its natural history and changes of plumage. H. Blake-Knox, Zoologist, S. S. pp. 361-372.

Xema jamesoni is figured. S. Diggles, Orn. Austral. part viii.

Sterna macrodactyla and *S. macroptera* appear to be described as new species, both from Africa. J. H. Blasius, J. f. O. 1866, pp. 79, 80, and 86.

Sterna luctuosa is described as a new species from Chili, having a white horseshoe on the forehead, but otherwise black above, and beneath white and silver-grey. R. A. Philippi and L. Landbeck, Arch. f. Naturgesch. 1866, ii. pp. 126, 127.

Hydrochelidon leucoptera has occurred near Cape York, North Australia. J. Gould, P. Z. S. 1866, p. 218.

PROCELLARIIDÆ.

COUES, ELLIOT. A critical Review of the family *Procellariidæ*:—Part iii., embracing the *Fulmaræ*. Proc. Acad. Philad. 1866, pp. 25-33.—Part iv., embracing the *Æstrelateæ* and the *Prionæ*. *Ibid.* pp. 134-172.—Part v., embracing the *Diomedeinæ* and the *Halodrominæ*. With a general supplement. *Ibid.* pp. 172-197.

The first and second parts of this paper were fully noticed in our first volume (pp. 95, 96). These, which conclude the subject, are elaborated similarly to their predecessors. The *Fulmaræ* are divided into three genera:—*Fulmarus*, with *Procellaria*

* Not published till 1866.

glacialis, Linn., as its type; *Thalassoica* (lege *Thalassoca*), with *P. glacialisoides*, A. Smith; and *Ossifraga*, containing only *P. gigantea*, Gmel. The *Æstrelateæ* are composed of three genera:—*Æstrelata*, with *P. hasitata*, Kuhl, as its type; *Pagodroma*, containing only *P. nivea*, Gmel.; and *Daption*, restricted to *P. capensis*. The *Prionæ* also are divided into three genera:—*Halobana*, containing only *P. cerulea*, Gmel.; *Pseudoprion*, gen. nov., founded on *P. turtur*, Kuhl; and *Prion*, restricted to *P. vittata*, Gmel. The *Diomedeinæ* form a single genus, with *Diomedea exulans*, Linn., as its type, as do the *Halodrominæ*, the generic name used being *Pelecanoides*, with *P. urinatrix*, Gmel., for the typical species. To this disposition of the whole family follow first a supplement, with additions and corrections, and next a bibliographical appendix.

Pterodroma caribbæa is the name given to the "Blue-Mountain Duck" of Jamaica, first mentioned by Mr. Gosse (B. Jam. p. 437), but now first described. A. Carte, P. Z. S. 1866, pp. 93, 94, pl. x. (*fig. mala*). Referred to the genus *Æstrelata*. E. Coues, Proc. Acad. Philad. 1866, pp. 159, 171.

Diomedea leptorhyncha is doubtfully described as a species, from a skull in the Smithsonian Museum, which is considerably narrower and smaller in all its dimensions than that of *D. brachyura*. E. Coues, *ut supra*, pp. 178–187.

Diomedea gilliana is described as a new species from an unknown locality, belonging to the same group as *D. melanophrys*, and like that species in colour except on the under surface, but with the bill more nearly approaching that of *D. culminata*. *Idem*, *ut supra*, pp. 181, 182.

Diomedea exulans and *D. fuliginosa*, notes on them, with reference to Captain Hutton's observations (Zool. Record, ii. pp. 56, 136). Howard Saunders, Ibis, 1866, pp. 124–126. Notes on their means of flight and habits. B. T. Lowne, Zoologist, S. S. pp. 114–118. Suggestion as to the manner in which the young are supported while deserted by their parents. C. J. Andersson, Ibis, 1866, p. 324.

Procellaria glacialis is figured. C. J. Sundevall, Sv. Fogl. pl. lxxix. fig. 4.

Nectris brevicaudus, an account of its habits reprinted from Mr. Gould's 'Handbook of the Birds of Australia' (ii. pp. 459–464), which was partly extracted from Mr. Elwes's paper in 'The Ibis' (1859, pp. 397–399), though the bird is there called *Puffinus obscurus*. Zoologist, S. S. pp. 208–211.

PELICANIDÆ.

CUNNINGHAM, R. O. On the Solan Goose or Gannet (*Sula bassana*, Linn.). Ibis, 1866, pp. 1–23, pl. i.

A very carefully executed monograph of this species, the bibliography of which is given at a great length. The nestling is figured.

Phalacrocorax graculus, notes on its natural history, changes of plumage, and habits in confinement. H. Blake-Knox, Zoologist, S. S. pp. 243–257, 328–333.

Phalacrocorax sulcirostris, head figured. S. Diggles, Orn. Austral. part ix.

Plotus melanogaster is the Madagascar species (Ibis, 1863, p. 461). H. Schlegel, P. Z. S. 1866, p. 426.

Plotus novæ-hollandiæ, head figured. S. Diggles, Orn. Austral. part vi.

COLYMBIDÆ.

Colymbus adamsi is figured. D. G. Elliot, B. N. Am. part i.

PODICIPIDÆ.

Podiceps hectori is a new species from Otago, New Zealand, readily distinguished from *P. australis* by the total absence of white on the scapulars and secondaries. W. Buller, Ess. Orn. N. Zeal. p. 19.

Colymbus [sc. *Podiceps*] *cristatus*, description of a nearly white specimen. C. Gloger, J. f. O. 1866, pp. 285, 286.

Podiceps affinis is a supposed new species, from North America, very like *P. cooperi* in the form of the bill, but differing from it in colour, being blackish above, the upper part of the cheeks ashy-grey, and the lower, as also the throat, white. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

ALCIDÆ.

NEWTON, ALFRED. Auszug aus Herrn J. Wolley's Untersuchungen in Island betreffend den Geier-Vogel oder grossen Alk. Journ. für Orn. 1866, pp. 310-338.

A German translation of a paper which appeared in 'The Ibis' for 1861 (pp. 374-390).

Alca impennis: a German translation of the paper from the 'Natural History Review' (1865, pp. 467-488) noticed by us last year (Zool. Record, ii. p. 137) is given. J. f. O. 1866, pp. 394-419. Extracts from old authors mentioning it. S. F. Baird, Ibis, 1866, pp. 223, 224. Discovery of a nearly perfect skeleton in the Museum of the College of Surgeons. W. H. Flower, loc. cit. Note on specimens. Vouga, Bull. Soc. Orn. Suisse, 1866, pp. 113, 114. Notes on its supposed occurrence on the Norwegian coast of late years. R. Collett, J. f. O. 1866, pp. 70, 71. Supposed to have bred on Lundy Island in 1838 or 1839. M. A. Mathew, Zoologist, S. S. pp. 100, 101.

Alca torda with nestling is figured. J. Gould, B. Grt. Br. part x.

Uria craveri is a supposed new species from the Gulf of California, about the size of *Mergulus alle*, above dusky-black, the back and wings somewhat tinged with grey, the bill very long, awl-shaped, and, with the back of the tarsi (which are greenish-yellow in front), black. T. Salvadori, Atti Soc. Ital. Sc. Nat. viii. 1866.

Ombria psittacula is figured. D. G. Elliot, B. N. Am. part i.

STRUTHIONES.

STRUTHIONIDÆ.

PARKER, W. K. On the Structure and Development of the Skull in the Ostrich Tribe. Phil. Trans. 1866, pp. 113-183, pls. vii.-xv. (See under "ANATOMY AND PHYSIOLOGY.")

Rhea americana, observations on it in confinement. M. Schmidt, Zoolog. Garten, 1866, pp. 8-14; J. L. Fitzinger, op. cit. pp. 131-133.

Dromæus novæ-hollandiæ, observations on its breeding. W. Hartmann, Zoolog. Garten, 1866, pp. 69-72.

Casuarius galeatus and others of the genus, observations on them. F. Schlegel, Zoolog. Garten, 1866, pp. 177-180.

Casuarius kaupii, Rosenberg, J. f. O. 1861, pp. 44, 45, pl. ii. figs. 12, 13, is identical with *C. uniappendiculatus*, Blyth, J. A. S. B. 1860, p. 27. H. Schlegel, P. Z. S. 1866, p. 168; N. T. D. iii. p. 347. Its eggs, laid at Amsterdam, described. P. L. Sclater, P. Z. S. 1866, p. 34. A list of the five good species of the genus, showing their geographical distribution, is given. *Idem*, tom. cit. p. 168.

Casuarius australis, feathers supposed to belong to this species exhibited, and remarks from Mr. W. J. Scott respecting it. *Idem*, tom. cit. pp. 557, 558.

Casuarius bicarunculatus, notes on this species. H. Schlegel, N. T. D. iii. pp. 347, 348.

Dinornis, particulars of the discovery of the egg mentioned last year (Zool. Record, ii. p. 138). Zoologist, S. S. p. 34.

Dinornis (?), discovery of fossil remains of a gigantic bird in New Zealand, the head 3 ft. 4 in. by 1 ft. 10 in., the tail long, wings well defined, large, and close to the body (!). Zoologist, S. S. p. 97. [Qu. a Saurian?]

APTERYGIDÆ.

Apteryx. Several bits of new information respecting the different existing species of this genus are given. *A. australis*, of which two more specimens have been obtained, there having hitherto been but two known, seems to belong to the province of Otago, the extreme south of New Zealand. *A. owenii* is plentiful in the province of Nelson, where *A. maxima* is supposed also to occur; but of the latter it does not appear that a specimen has ever been obtained by any naturalist. *A. mantelli* is the common species of the North Island. It is not improbable that on the west coast of the South Island a fifth species exists, resembling *A. owenii*, but smaller, with more slender legs and a longer bill. W. Buller, Ess. Orn. N. Zeal. pp. 14, 15.

AVES

BY

ALFRED NEWTON, M.A., F.L.S., etc.

THOUGH exceeding in bulk that of its predecessors, the ornithological literature of 1867 seems somewhat to fall off as regards special results. Nevertheless the past year has produced Prof. Huxley's remarkable attempt to construct a systematic arrangement of Birds based on firm, because really philosophical grounds; and the value of this scheme cannot be overrated. If it does not at once set forth a classification entirely satisfactory, it is at least a vast stride in the direction of one. The effects on ornithology of Mr. Layard's long-expected 'Birds of South Africa' are likely, especially in the country to which it refers, to be very considerable, though it has not been elaborated with the amount of care which the difficulties of the subject required. On the other hand, in the work of Dr. Hartlaub and Mr. Finsch on the ornithology of Central Polynesia everything which literary skill and profound knowledge can supply is furnished; but, from the nature of the case, it will hardly be the starting-point of a new school of ornithologists, as may reasonably be expected of Mr. Layard's volume. The first portion of Mr. Finsch's monograph of Parrots is a model both of conception and execution; while the completion of Mr. Eyton's 'Osteologia Avium,' the commencement of Prof. Alphonse Milne-Edwards's 'Oiseaux Fossiles,' and the publication of Mr. Sclater's edition of Nitzsch's 'Pterylography' mark the year as one of great importance as regards the generalities of ornithology. As before, we have to acknowledge the receipt of much valuable help from our fellow workers in almost all countries, who have thereby rendered our 'Record' far more complete than it would otherwise have been; and we have included in it many notices properly belonging to previous years, which, from one cause or another, have hitherto been overlooked.

BIBLIOGRAPHY.

HARTLAUB, GUSTAV. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1866. Archiv für Naturg. Jahrg. xxxiii. Band ii. pp. 32. Berlin: 1867.

Little more need be said of this Report than that it is a worthy successor of the long series of its predecessors. Its author's experience enables him to compress his information into limits so small that it would be highly dangerous for a person with less practice to attempt the like; but, though he does not enter minutely into details, we have noticed no serious omissions on Dr. Hartlaub's part, and we have to thank him for the kind manner in which he is pleased to speak of our own previous 'Records.'

ARRIGONI, ODDO. *La Storia dell' Ornitologia. Capo I. Atti Soc. Ital. Sc. Nat. x. pp. 136-144.*

This, the first chapter of a history of ornithology, contains notices of the works of Aristotle, Pliny, Belon, and Gesner.

BLYTH, E. *The Ornithology of India.—A Commentary on Dr. Jerdon's 'Birds of India.'* [See "INDIAN REGION."]

CASSIN, JOHN. *Fasti Ornithologiæ, No. 3.—'Encyclopædia Londinensis.'* *Proc. Acad. Philad. 1867, pp. 212-221.*

The 'Encyclopædia' was published between 1795 and 1829, and was "compiled, digested, and arranged by John Wilkes . . . assisted by eminent scholars." Mr. Cassin maintains that the names in it bestowed upon various birds for the first time should stand; but not knowing who the editors of the ornithological portion of it were, he holds the compiler responsible for the nomenclature, and proposes to alter the names of about thirty species of birds in favour of those previously (for the dates are given on the plates) given to them by this anonymous authority. (*Cf. Ibis, 1868, p. 231.*)

HARTING, J. E. *The Birds of Shakespeare. Zoologist, Second Series, pp. 529-536, 649-667.*

The conclusion of a series of papers noticed last year (*Zool. Rec. iii. p. 45*).

——. *A Review of Systems. Tom. cit. pp. 584-589.*

That of Yarrell is most commended.

HEUGLIN, M. T. VON. *Ueber die ornithologischen Arbeiten des Herzogs Paul Wilhelm von Württemberg, u. s. w.* [See "ETHIOPIAN REGION."]

SCLATER, P. L. *Remarks on Dr. Léotaud's 'Birds of Trinidad.'* *Ibis, 1867, pp. 104-108.* [See "NEOTROPICAL REGION."]

SUNDEVALL, C. J. *Les Oiseaux d'Afrique de Levaillant, critique de cet ouvrage. Rev. et Mag. de Zool. 1867, pp. 76-78, 116-122, 188-92, 218, 219, 251-254, 303-305.*

A continuation of M. Olph-Galliard's translation before noticed (*Zool. Rec. iii. p. 45*).

THE GENERAL SUBJECT.

ALTUM, B. Aberrationen. Journ. für Orn. 1867, pp. 85–89.

An enumeration of various abnormally coloured birds which have come under the author's observation.

COPE, E. D. An Account of the Extinct Reptiles which approached the Birds. Proc. Acad. Nat. Sc. Philadelphia, 1867, pp. 234, 235.

A very brief abstract of what must have been a most interesting and valuable paper. The approximation was at two points—the first by the *Pterosauria*, to which *Archæopteryx* had affinity. The second by the *Dinosauria* of the orders *Goniodonta* and *Symphypoda*. This was chiefly manifest by the bones of the hind limbs. The most bird-like of the Connecticut tracks were made by *Bathygnathus*, which had a more or less erect position. The separated metatarsals of the *Spheniscidæ* make an approach to the structure of the bird-like Reptiles; but the author was unable to indicate whether the closest approximation was here or among the *Ratitæ*.

CROMMELIN, J. P. VAN WICKEVOORT. Contributions à l'hybridologie ornithologique. Arch. Néerl. ii. pp. 447–452.

DROSTE, FERD. VON. Das Reichsmuseum zu Leyden. Journ. für Orn. 1867. pp. 352–355.

——. Crommelin's Museum. *Tom. cit.* pp. 355, 356.

Brief notices of the well-known Museum at Leyden, and the less-known collection of Heer Crommelin at Haarlem.

HARTT, C. FREDERICK. The Recent Bird-Tracks of the Basin of Minas. American Naturalist, 1867, pp. 169–176, 234–243.

An agreeably written paper, but containing nothing of very great novelty or importance. That the commonly received explanation of the process by which fossil bird-tracks are produced is correct is shown by the author's experience of recent similar markings.

HÖSSELBARTH, G. Vergleichende Uebersicht der Vögel. Mittheilungen aus dem Osterlande, Bd. xviii. (1867) pp. 67–86.

A treatise of an elementary nature, in the form of a lecture delivered to the Natural History Society which meets at Altenburg.

HUTTON, F. W. Notes on the Birds seen during a Voyage from London to New Zealand in 1866. Ibis, 1867, pp. 185–193.

These form a worthy sequel to the author's former paper (Zool. Rec. ii. p. 56). About 20 species (all but one belonging to *Procellariidæ*) are noticed, some of them not determined, and among them two, or perhaps more, which may be new

species, but which he most judiciously refrains from describing. The results of some experiments in marking birds, to see how long they continue in company with a ship, are detailed, but these we cannot hold to be quite conclusive. More satisfactory are the observations showing that these ocean wanderers pass the night on the water. Much benefit would be derived, however, if there were more exact and trustworthy observers such as Capt. Hutton.

HUXLEY, THOMAS H. On the Classification of Birds; and on the Taxonomic Value of the Modifications of certain of the Cranial Bones observable in that Class. Proc. Zool. Soc. 1867, pp. 415-472.

This paper, so far as we are aware, is immeasurably the most important that has appeared during the past year; and its effects on the future progress of ornithology can hardly be estimated. After briefly recapitulating the principal characters possessed in common by *Aves* and *Reptilia*, causing them to be regarded by the author as forming one primary group of Vertebrates, to which he has applied the name *Sauropsida*, and then the characters distinguishing Birds from Reptiles, he divides *Aves* into three orders:—(I.) SAURURÆ, Hækel, (II.) RATITÆ, Merrem, and (III.) CARINATÆ, Merrem. The *Saururæ* have the metacarpals well developed and not anchylosed, and the caudal vertebræ are numerous and large, so that the caudal region of the spine is longer than the body. The furculum is complete and strong, the feet very Passerine in appearance. The skull and sternum are unknown; indeed the whole Order rests entirely on the celebrated unique fossil *Archæopteryx* (Phil. Trans. 1863, pp. 33-47, pls. i.-iv.), and is without doubt entirely extinct. The *Ratitæ* comprehend the Struthious birds, and differ from all others in the combination of several peculiarities. The sternum has no keel, and ossifies from lateral and paired centres only; the axes of the scapula and coracoid have the same general direction; certain of the cranial bones have characters very unlike those possessed by the next order—the vomer, for example, being broad posteriorly and generally intervening between the basisphenoidal rostrum and the palatals and pterygoids; the barbs of the feathers are disconnected; there is no inferior larynx; and the diaphragm is better developed than in other birds. The *Ratitæ* are divided into five groups, separated by very trenchant characters, principally osteological, those afforded by the cranial bones being illustrated by a series of figures. These groups contain (i) *Struthio**, (ii) *Rhea*, (iii) *Casuarus* and *Dromæus*, (iv) *Dinornithis*, and (v) *Apterygidæ*; but no names are given to

* The old names of the genera or larger groups in the present abstract must be understood in the same sense as that in which they have been used in this 'Record' for previous years.

them. The *Carinatae* contain all other existing birds. The sternum has more or less of a keel, and ossifies (except possibly in *Strigops*) from a median centre as well as from paired and lateral ones. The axes of the coracoid and scapula meet at an acute or, as in *Didus* and *Ocydromus*, at a slightly obtuse angle, while the vomer is comparatively narrow and allows the pterygoids and palatals to articulate directly with the basisphenoidal rostrum. The *Carinatae* are divided, according to the formation of the palate, into four groups or "suborders" and named (i) *Dromæognathæ*, (ii) *Schizognathæ*, (iii) *Desmognathæ*, and (iv) *Ægithognathæ*. The *Dromæognathæ* resemble the *Ratitæ* in their palatal structure, and are composed of the family *Tinamidae*. The *Schizognathæ* include a great many forms usually placed in *Gallinae*, *Grallæ*, and *Anseres*. In this "suborder" the vomer, however variable, always tapers to a point anteriorly, while behind it embraces the basisphenoidal rostrum between the palatals; but neither these nor the pterygoids are borne by its posterior divergent ends. The maxillo-palatals are usually elongated and lamellar, uniting with the palatals, and, bending backward along their inner edge, leave a fissure (whence the name of the "suborder") between the vomer and themselves. Six groups of *Schizognathæ* are distinguished with considerable minuteness:—(1) *Charadriomorphæ*, containing *Charadriidæ*, *Otididæ*, and *Scolopacidæ*; (2) *Geranomorphæ*, including *Gruvidæ* and *Rallidæ**, between which *Psophia* and *Rhinocetus* are intermediate; (3) *Cecomorphæ*, comprising *Laridæ*, *Procellariidæ*, *Colymbidæ*, and *Alcidæ*; (4) *Spheniscomorphæ*, composed of *Spheniscidæ*; (5) *Alectoromorphæ*, being all the *Gallinae* except *Tinamidae*; and, finally, (6) *Peristeromorphæ*, consisting of the *Columbæ*. In the *Desmognathæ* the vomer is either abortive or so small as to disappear from the skeleton. When it exists it is always slender and tapers to a point anteriorly. The maxillo-palatals are united (whence the name of the "suborder") across the middle line, either directly or by the ossification of the nasal septum. The posterior ends of the palatals and anterior of the pterygoids articulate directly with the rostrum. The groups of *Desmognathæ* are characterized as carefully as those of the last "suborder" and are as follows:—(1) *Chenormorphæ*, consisting of *Anatidæ* with *Palamedea* (cf. Zool. Rec. iii. p. 111, note); (2) *Amphimorphæ*, composed of *Phænicopteridæ*; (3) *Pelargomorphæ*, containing *Ardeidæ*, *Ciconiidæ*, and *Tantalidæ*; (4) *Dysporomorphæ*, coextensive with *Pelecanidæ*; (5) *Aetomorphæ* and (6) *Psittacomorphæ*, identical respectively with *Accipitres* and *Psittaci*; and, lastly, (7) *Coccygomorphæ*, which is held to include four groups, viz.:—(a) *Coliidæ*, (b) *Musophagidæ*, *Cuculidæ*, *Bucconidæ*, *Rhamphastidæ*, *Capitonidæ*, *Galbulidæ*, (c)

* *Dicholophus* also would appear to be referred here (p. 455).

Alcedinidæ, *Bucerotidæ*, *Upupidæ*, *Meropidæ*, *Momotidæ*, *Coraciidæ*, and (d) *Trogonidæ*. Next in order come the *Celeomorphæ* (= *Picidæ*), a group respecting the exact position of which Prof. Huxley is uncertain, though he is inclined to suppose its affinities are with the *Ægithognathæ*, the fourth and last of his "suborders," characterized by a palatal structure in some respects intermediate in structure between the preceding ones. The vomer is broad, abruptly truncated in front, and deeply cleft behind, so as to embrace the rostrum of the sphenoid; the palatals have produced postero-external angles, the maxillo-palatals are slender at their origin, and extend obliquely inwards and forwards over the palatals, ending beneath the vomer in expanded extremities, not united either with one another or with the vomer. The anterior part of the nasal septum is frequently ossified, but this ossification is not united with the vomer. The *Ægithognathæ* are divisible into two groups: (1) *Cypselomorphæ*, including *Trochilidæ*, *Cypselidæ*, and *Caprimulgidæ*, and (2) *Coracomorphæ*, which last are separable into two groups (neither of which receives a name), one (a) formed of the genus *Menura*, which seems to stand alone, and the other (b) made up of (a) *Polymyoda*, (β) *Tracheophonæ*, and (γ) *Oligomyodæ*, sections founded on the laryngeal structure, but declared to be not natural. The *Coracomorphæ*, therefore, corresponds with the *Passerines* of this 'Record,' and contains by far the largest number of species.

Such, then, is a very brief abstract of this remarkable paper, which is admirably illustrated by woodcuts showing the various modifications of palatal structure described by the author. The only group with respect to which he enters into further details is that of the *Aetomorphæ*, which he divides into four primary groups (see special part under "ACCIPITRES"). That the principles of ornithological classification here laid down are not entirely new is no objection to them; for Prof. Huxley has gone much more thoroughly into the subject than did Dr. Cornay (*L'Institut*, xii. p. 21; *Comptes Rendus*, xviii. pp. 94, 95; *Rev. Zool.* 1847, pp. 360-369), whose labours have not generally been regarded with favour; but it does seem a question very much deserving of attention how far any approach to a natural system can be based on the modifications of one part of an animal's structure without any reference whatever to other portions of it. The present proposal, therefore, must be regarded as on its trial; but though it appears to us on the whole to result in a purely artificial system, it is undoubtedly of a very different kind from almost any that has before been suggested. There is in it no room for fancy, the statements are indisputable, and all that remains for consideration is whether they really possess the importance which their author assigns to them. But we value Prof. Huxley's investigations very much as tending to lead to a

more satisfactory arrangement than has yet been attained, and we shall be greatly mistaken if they have not this effect, though we may never reach the goal of a classification on Genetic principles, which can alone be the "System of Nature." (Cf. Journ. Anat. & Physiol. i. pp. 369-371, ii. p. 390; Ibis, 1867, pp. 254, 255, 1868, pp. 85-96, 357-362.)

MARTENS, E. VON. Die Preussische Expedition nach Ost-Asien. Nach amtlichen Quellen. Erster Band—erste Hälfte. Berlin: 1865. Roy. 8vo, pp. 192.

The expedition sailed early in 1860; and this work gives a general account of the zoology of the places visited by the 'Thetis,' on board which the author was. Ornithology does not come in for many remarks; but that of the Madeiras is noticed (p. 8), and further on a list of the species found there is given (pp. 20, 21), chiefly from Mr. E. Vernon-Harcourt's (Ann. & Mag. Nat. Hist. 2nd ser. xv. pp. 430-438). Mention is successively made of the birds observed in the Tropical Atlantic (p. 27), at Rio Janeiro (pp. 35, 37), in the Southern Ocean (pp. 45-50), many of which were not identified, the Straits of Sunda (pp. 50-53), and Japan (pp. 62-68, 87-109, and 147)—a list being given from a Japanese encyclopædia of their names, and a pretty successful attempt at identifying the species included with scientific nomenclature being made. The birds of Northern China are afterwards mentioned (pp. 155, 156) and then those of Southern China (pp. 179, 180). Finally a list of birds observed in the Philippine Islands is begun (pp. 187-192), but left unfinished. This includes some of those given in the author's more detailed list (Zool. Rec. iii. p. 56); but descriptions of those then announced as new are not added. (Cf. Ibis, 1868, pp. 340, 341.)

MILNE-EDWARDS, A. Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux Fossiles de la France. Livr. 1-17. Paris: 1867. 4to, pls.

This magnificent work, now in course of publication, is the prize-essay mentioned by us last year (Zool. Rec. iii. p. 47). After a chapter of general considerations comes one containing the author's notions of the osteology of birds, which is divided into sections, each treating of a portion of the skeleton (the leg, trunk, wing, and head)—a convenient arrangement of the subject, followed throughout the work. The osteological characters of the *Anatidæ* are next considered; and to this succeeds a description of the fossil species belonging to the family, first those of the tertiary epoch and next those of the "quaternary." A chapter follows on birds probably allied to the *Anatidæ*, where is lodged *Gastornis parisiensis* *. The *Pelecanidæ* are treated in the same way, and then the *Colymbidæ* and *Podicipidæ*, under

* A more detailed memoir, by the same author, on this much-discussed form will be found in Ann. des Sc. Nat. 5^e sér. Zool. vii. pp. 217-227.

the name of "Colymbides." These are succeeded by the "Longipennes" (*Laridæ* and *Procellariidæ*), in the midst of which the work at present breaks off. The plates are beautifully executed, and contain a marvellous amount of details, chiefly of the osteology, but some of the myology of birds, both recent and fossil. The new species described or figured will be found mentioned in the special part of this Record under their respective families as above named.

PARKER, W. K. On some Fossil Birds from the Zebbug Cave, Malta. Trans. Zool. Soc. vi. pp. 119-124, pl. xxx.

The specimens before mentioned (Zool. Rec. ii. p. 57) are described. Unfortunately the most interesting of them (the head of *Cygnus falconeri*, which was nearly a third larger than *C. olor*) is not figured.

PETTIGREW, J. B. On the various Modes of Flight in relation to Aeronautics. Journ. Roy. Inst. Gr. Brit. 22 March, 1867, pp. 14.

An abstract of a very interesting lecture delivered by the author, which has since appeared in the 'Linnean Transactions' for the present year; but the subject has too little of pure zoology in it to be here dwelt upon.

PUCHERAN, —. Sur les indications que peut fournir la Géologie, pour l'explication des différences que présentent les Faunes actuelles. Rev. et Mag. de Zoologie, 1867, pp. 161-169, 197-199, 257-271.

This series of articles (Zool. Rec. ii. pp. 58, 59, iii. p. 47) is at length concluded. In those above cited, the author, after enumerating the birds common to Algeria and North-eastern Africa, proceeds to name the species peculiar to the islands of Borneo, Sumatra, and Java, and finds he cannot determine the general characters by which the ornis of the one is distinguished from that of the others, any more than he can decide whether there is any physical or climatal harmony between the Indian Archipelago and its mammalian or ornithic inhabitants. It is evident, he says, that one of the islands has been a centre of distribution to the others. Geologists, then, must show which of them has existed first; and it is most probable that the three just named have once formed a continent. In this case it is easy to conceive that the slight differences separating the animals of one from those of the other have originated from the time when isolation began. The same problem can also be laid down with respect to Polynesia; and a few of the birds found in the Feejee, Salomon, and Samoan Islands are enumerated in support of the same view, the distribution of the *Columbæ* being especially dwelt upon. From a consideration of the mode in which the coral islands of the Pacific are formed, it is clear that the birds which inhabit them now did not exist there once; they must

therefore have come from elsewhere; and it is also proved that the larger the area such localities present the more diverse are the forms which inhabit them. The birds must have spread by migration; and it remains for geologists to point out the centre of distribution whence they have radiated, for it will then be proved that the differential characters they possess are due to the new conditions under which they found themselves.

Finally Dr. Pucheran asserts the unity of distribution of contemporary faunas. Setting out from one and the same centre, the different forms spread to places of very different physical conditions, the action of which has modified them to their present state. Geology, he conceives, will throw sufficient light on these changes to enable us to learn their history. (See above, "MAMMALIA.")

SCLATER, P. L., and SALVIN, OSBERT. Exotic Ornithology. Parts II.-IV. London: 1867. Imp. 4to, pp. 17-64, pls. ix.-xxxii.

Three parts of this work have appeared during the past year. The species figured are noticed under the families to which they belong. They are all from the New World; and a synopsis of the American species of the genera *Phlogopsis*, *Nyctibius*, *Cyphorhinus*, *Myiadestes* (now placed with the *Turdidae*), *Hylactes*, *Oedinemus*, and *Lanio* is given. (Cf. Ibis, 1867, p. 372, 1868, p. 335.)

[WALLACE, A. R.] Mimicry and other Protective Resemblances among Animals. Westminster Review. July, 1867, pp. 1-43.

Most of the examples cited are entomological; but a few are from birds, and the especially remarkable cases of the close superficial resemblance between *Mimeta bouruensis*, *M. forsteni*, *M. virescens*, and *M. phæochromus*, and the species of *Tropidorrhynchus* (*T. bouruensis*, *T. subcornutus*, *T. timorensis*, and *T. fuscicapillus*), respectively inhabiting the same islands of Bouru, Ceram, Timor, and Morty, are dwelt upon. The facts also of the females of *Phalaropus fulicarius*, *Eudromias morinellus*, and of the genus *Turnix* being larger and more brightly coloured than the males are also quoted to prove the theory of "Sexual Selection."

WIESE, —. Die Vögel als Verkündiger des Wetters. Journ. für Orn. 1867, pp. 145-149.

This paper consists mostly of assertions, with some recorded facts, to show that birds can prognosticate changes of the weather.

PALÆARCTIC REGION.

ALLÉON, —. Note sur deux espèces d'Oiseaux qu'il convient d'introduire dans la faune européenne. Rev. et Mag. de Zool. 1867, pp. 3-7.

See "*Falconidæ*" and "*Columbidæ*." [Cf. *Ibis*, 1868, pp. 222, 223.]

BALDAMUS, E. Brutvögel im Ober- und Unter-Engadin. Zeitschr. für die gesamt. Naturwiss. lvi. (1867) pp. 99, 100.

Of about 80 species observed by the author, about 60 bred ; a few notes on the more interesting of these are added.

BARBOZA DU BOCAGE, J. V. A ornithologia dos Açores. Jornal de Ciencias da Acad. Real de Lisboa, 1866, pp. 89-92.

A review of the works of M. Morelet (Notice sur l'hist. nat. des Açores: 1860) and Mr. F. D. C. Godman (cf. Zool. Rec. iii. p. 50), the latter of whom the author takes to task for giving the vernacular names of the species incorrectly. He believes that *Fringilla moreleti* is identical with *F. tintillon*, and is inclined to doubt the specific validity of *Pyrrhula murina* (cf. R. Z. 1867, p. 376 ; *Ibis*, 1868, pp. 344, 345).

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia ad illustrazione della raccolta ornitologica dei fratelli ERCOLE ed ERNESTO TURATI con tavole litografate e colorate prese dal vero da O. DRESSLER. Milano: 1866-67. Folio. Fascicoli iv.-xv.

Since we last noticed this work (Zool. Rec. ii. p. 61) twelve more parts have appeared, of which the last five bear date 1867 ; and we find more in the letterpress than we at first supposed we should. There are some good remarks on the distribution of birds in Lombardy (pp. 14-16), and lists given of the characteristic species of the Alps, Mountains, and Plains of the province. Of about 270 species found in Lombardy, 174 are land-birds, 51 being residents, 67 summer visitants, 4 of double passage, 13 winter visitants, and 39 irregular, 96 are water-birds, 61 being resident or of double passage, and 35 irregular. The plates contain figures of a large number of eggs and young birds. (Cf. J. f. O. 1866, pp. 43-46, 1867, pp. 278-281 ; *Ibis*, 1868, p. 106.)

BRUHIN, TH. A. Zur Wirbelthierfauna Vorarlbergs. Zoolog. Garten, 1867, pp. 434-437.

Gypaetus barbatus and *Nucifraga caryocatactes* are the most interesting of the species mentioned.

BULLMORE, W. K. Cornish Fauna, a short account of all the Animals found in the County, with descriptions and remarks on the habits of many of the Rarer Birds, Fishes, &c. procured during the last Six Years. Truro: 1867. 8vo, pp. 64.

The ornithological portion is at pages 7-45. More than 280

species are stated to have occurred in the county; but the evidence as to some of them is not very satisfactory.

CARA, GAETANO. Osservazioni al Catalogo degli Uccelli di Sardegna pubblicato dal Dott^{re} Tommaso Salvadori. Cagliari: 1866. 8vo, pp. 152.

The author seeks to refute the charges of inaccuracy brought against him by Dr. Salvadori (Zool. Rec. i. pp. 44, 45), and criticises, in some cases very severely, the work of that naturalist. (Cf. Ibis, 1868, pp. 106, 107.)

CHAUVEAU (—). Sur les principaux Oiseaux du Thibet. Bull. Soc. Impér. d'Acclimat. 1867, pp. 712–714.

The species, with few exceptions, are only designated by their native names; and the author, not being a professed naturalist, has failed to distinguish the characters of most of the others so as to make them recognizable.

DEGLAND, C. D., GERBE, Z. Ornithologie européenne ou Catalogue descriptif, analytique et raisonné des Oiseaux observés en Europe. Deuxième édition, entièrement refondue. Paris: 1867. 8vo, 2 vols. pp. 610 and 637.

The first edition of this work was published in 1849, and has long been known. The author, Dr. Degland, intended to bring out a supplement, in which he should refute the many charges brought against him by Bonaparte; but dying before this labour was performed, his papers devolved upon M. Gerbe, who has preferred bringing out a new edition of the whole, entirely recast, so as, indeed, to become almost a new work. M. Gerbe has undoubtedly taken a great deal of trouble, and the new edition is thereby much more satisfactory than the old one; but still so vast is the amount of literature relating to European ornithology that the present work is still very far from being up to the mark. Most foreign journals are ignored or quoted at second hand; and even some important independent works are passed over; while some of the original statements of Degland have been left untouched, without reference to the time which has elapsed since they first appeared*. The number of European species described is 531. It is much to be wished that a competent person would write a careful commentary upon this work. (Cf. Compt. Rend. lxiv. p. 169; Ibis, 1867, pp. 240–242; A. von Homeyer, J. f. O. 1868, pp. 52–57.)

DRAKE, C. F. TYRWHITT. Notes on the Birds of Tangier and Eastern Morocco. Ibis, 1867, pp. 421–430.

After briefly describing the locality, 142 birds are named, short notes being added. *Otis arabs* is the most interesting of them.

* A remarkable instance of this is in vol. ii. p. 615, where an expression, "il y a une quinzaine d'années," which may or may not have been correct when Degland in 1849 published it (1st ed. ii. p. 529), still remains.

FRITSCH, A. Naturgeschichte der Vögel Europa's. Prag. Folio.

This work has reached plate 43, but we have not seen any letterpress published since we last noticed it (Zool. Rec. i. p. 42). The figures of the birds represented are on so small a scale, and nearly all of species often figured before, that we think it unnecessary to refer to them in more than a few cases.

FRITSCH, KARL. Kalender der Fauna von Oesterreich. Sitzungsab. K. Akad. Wissensch. Wien, Bd. lvi. (1867) pp. 201-238.

After furnishing a number of meteorological observations, the author gives (pp. 212-215) a list showing the average date of arrival in and departure from Austria of nearly 80 species of birds. (See above, p. 8.)

GERBE, Z. Ornithologie Européenne. [See DEGLAND, C. D., GERBE, Z.].

GOULD, JOHN. The Birds of Great Britain. Parts xi. and xii.

Two parts of this fine work have, as usual, appeared within the past year. (Cf. Ibis, 1868, p. 217.)

GRAY, ROBERT. Quadrupeds, Birds, and Fishes of Loch Lomond and its vicinity.

An appendix, apparently, to Kiddie's 'Guide Book to the Trosachs, Loch Lomond, &c.' (8vo, 1864). Only 111 species of birds included, and nothing that here requires further notice. (Cf. Ibis, 1867, p. 373.)

HINTZ I., W. Ornithologischer Jahresbericht u. s. w. in der Umgegend von Schlosskämpen bei Cöslin in Pommern. Journ. für Orn. 1867, pp. 149-

The author's accustomed annual report. (Cf. Zool. Rec. i. p. 43, ii. p. 64, iii. p. 51).

HOLMGREN, AUG. EMIL. Handbok i Zoologi för Landtbrukare, Skogshushållare, Fiskeriidare och Jägare. II. Delen. Skandinaviens Föglar. Förra Häftet. Stockholm: 1866. pp. 434, figs.

This is a work of educational character, and seems to be very conscientiously prepared. The introductory part contains a good outline of the general structure of birds, written in a popular manner. The classification is based on that of Prof. Sundevall, and the portion of the work published extends over *Picariæ* and *Passeres*. (Cf. Ibis, 1868, p. 113.)

HOMEYER, ALEXANDER VON. Briefe vom Kriegsschauplatze 1866. Journ. für Orn. 1867, pp. 46-55.

A good many ornithological observations made chiefly in Bohemia during the campaign of 1866; but none requiring extended notice.

——. Notizen zu Pässler's Beobachtungen aus dem Jahre 1866. *Tom. cit.* pp. 108, 109.

Of no very great importance.

HOMEYER, ALEXANDER VON. Zur Wanderung über das Riesengebirge. *Tom. cit.* pp. 420-422.

Contains nothing that requires notice here.

LLOYD, L. The Game Birds and Wild Fowl of Sweden and Norway. London: 1867. Royal 8vo, pp. 599, pls. 48.

This work does not contain much original matter, but is chiefly compiled from Scandinavian authorities, and furnishes the English reader with a very fair idea of their opinions on the various subjects of which it treats. The coloured plates, many of which are copies of Körner's Illustrations to Nilsson's 'Skandinaviska Foglar,' give a good series of figures of birds, *Tetraonidae* especially.

LOCHE, —. Exploration scientifique de l'Algérie pendant les années 1840, 1841, 1842 publiée par ordre du gouvernement et avec le concours d'une commission académique. Sciences physiques. Zoologie. Histoire naturelle des Oiseaux. Tome premier. Paris: 1867. Fol. pp. 309.

Though bearing the date of last year on its titlepage, it is impossible to regard this as a recent work. Its author died some six years ago, if not more; and it appears not to have received any fitting supervision since then. The volume includes notices of 166 species, one of which (belonging to *Sylviidae*) appears to be described as new.

MALMGREN, A. J. Bihang till berättelsen om den Svenska expeditionen till Spetsbergen, 1864.

An Appendix to 'Svenska Expeditioner till Spetsbergen och Jan Mayen' (Stockholm: 1867. 8vo, pp. 266), containing an abstract of the author's former papers on the Zoology of Spitsbergen (Zool. Rec. ii. p. 65; iii. p. 51), written apparently before the publication of the paper in the 'Journal für Ornithologie' for 1867 (pp. 207-211). The ornithological portion is at pp. 247-249.

MARCHAND, ARMAND. Catalogue des Oiseaux observés dans le département de l'Eure-et-Loir. Rev. et Mag. de Zool. 1867, pp. 33-37, 138, 139, 322-324.

In continuation of the series of papers noticed before (Zool. Rec. i. p. 43, ii. p. 65).

NEWTON, ALFRED. Zur Vogel-Fauna Spitzbergens. Journ. für Orn. 1867, pp. 207-211.

A reply to the criticism of Dr. Malmgren (Zool. Rec. iii. p. 51).

PÄSSLER, W. Einige Beobachtungen aus dem Jahre 1866. Journ. für Orn. 1867, pp. 56-64.

Remarks of no very general interest. (Cf. HOMEYER, A. VON.)

RIVA, ANTONIO. L'Ornitologo Ticinese ossia Manuale descritt-

tivo gli Uccelli di stazione e di passaggio nel Cantone Ticino coll' elenco nominativo e sistematico di quelli d' Europa e della loro ordinaria dimora. Lugano: 1865. 8vo, pp. 596.

A compilation, chiefly adapted, as it seems, as an educational manual. The species included by the author are 539 in number, those occurring in the district to which the work has particular reference being described at some length. Many of the errors of Temminck and other older authors are perpetuated. (Cf. Ibis, 1868, pp. 105, 106.)

RODD, EDWARD HEARLE. A List of British Birds, as a Guide to the Ornithology of Cornwall, especially in the Land's-end District; with remarks on the capture, habits, &c. of some of the rarer species. London and Penzance: 1864. 8vo, pp. 42.

About 270 species have occurred in Cornwall; and specimens of the greater number are in the author's collection.

SAXBY, H. L. Ornithological Notes from Shetland. Zoologist, S. S. pp. 537-539, 688-690.

Nothing of importance (except the occurrence for the first time in the islands of *Machetes pugnax*) is recorded in these papers, which are a continuation of the series before noticed (Zool. Rec. iii. p. 52).

SCHACHT, H. Die Sänger des Teutoburger Waldes. Zoolog. Garten, 1867, pp. 299-306.

Only common species mentioned, and some of these by names apparently of the author's invention.

SOMMERFELT, CH. List of Birds noticed in East Finmark, with a few short Remarks respecting some of them. Zoologist, Second Series, pp. 692-700, 761-778.

A translation, by Mr. H. E. Dresser, of a very interesting paper, published at Stockholm some years ago (Cefvers. K. Vet.-Ak. Förh. 1861, pp. 67-90) by the author, who resided for many years on the Varanger Fjord in north-eastern Norway. It is the best account of the ornithology of the district, which is in some respects very peculiar, as the observations extend over a far longer time than those of HH. Malm (Kröyer's Nat. Tidsskr. 2nd ser. i. pp. 180-212) and Schrader (Journ. für Orn. 1853, pp. 240-260, 305-326), and are free from some errors whereby these last were disfigured. The number of species enumerated is 140 (to most of which their Lapp names are appended), and Prof. Sundevall adds two more species in a supplementary note.

SUNDEVALL, C. J. Svenska Foglarna. Part xix. Stockholm: 1867. Oblong 4to.

Only this one part has made its appearance. It contains half-sheets 57-60, and plates lxxii., lxxiii., lxxvii., and lxxviii.

TRISTRAM, H. B. On the Ornithology of Palestine, Part V., Ibis, 1867, pp. 73-97, pl. i.; Part VI., *tom. cit.* pp. 363-371, pl. vii.

A continuation of the articles noticed previously (Zool. Rec. ii. pp. 67, 68, iii. p. 53). Part V. contains an excellent account of the *Sylviidæ* (of which three new species are described) and especially of the genera *Saxicola* and *Ruticilla*, while Part VI. treats of the *Muscicapidæ*, *Hirundinidæ*, *Laniidæ*, *Sturnidæ*, *Emberizidæ* and some of the *Fringillidæ*. The value of oological characters in determining the different groups of *Sylviidæ* are particularly dwelt upon. The plates represent *Bessornis albigularis* and *Passer moabiticus*.

——. The Natural History of the Bible: being a Review of the Physical Geography, Geology, and Meteorology of the Holy Land; with a description of every Animal and Plant mentioned in Holy Scripture. London: 1867. 12mo, pp. 516.

A popularly written but extremely well-executed and succinct account of the subject, the ornithological portion of which occupies a large space (pp. 156-253) and is illustrated by a good many woodcuts, some of them representing species not often figured before, as *Ammoperdix heyi* (p. 227) and *Pterocles senegalensis* (p. 229). (Cf. Ibis, 1868, p. 219.) [See under "MAMMALIA," p. 3.]

TURNBULL, WILLIAM P. The Birds of East Lothian and a portion of the adjoining counties. Glasgow: 1867. Roy. 8vo, pp. 48, figs.

None of the 235 species included seem to require any further notice here. (Cf. Ibis, 1868, pp. 373, 374.)

WHITELY JUNIOR, HENRY. Notes on Birds collected near Hakodadi in Northern Japan. Ibis, 1867, pp. 193-211, pl. iii.

The locality having been previously described by Capt. Blakiston (Ibis, 1862, pp. 312-314), the author says little of it, but enumerates 98 species, of which he collected specimens. A few corrections of synonymy are made. The plate represents *Garrulus brandti*, Hartl. (R. Z. 1845, p. 52).

WIEN, —. Ornithologische Miscellen. Journ. für Orn. 1867, pp. 82-85.

Observations chiefly of local interest.

ETHIOPIAN REGION.

ANTINORI ORAZIO. Beschreibung und Verzeichniss, u. s. w. Journ. für Orn. 1867, pp. 94-106.

A continuation of Dr. Hartmann's translation before mentioned by us (Zool. Rec. ii. p. 69, and iii. p. 53). It is still far

from being concluded. The translator's notes chiefly contain brief observations of Dr. von Heuglin's.

BARBOZA DU BOCAGE, J. V. Aves das possessões portuguezas da Africa occidental que existem no Museu de Lisboa. *Jornal de Sciencias da Acad. Real de Lisboa*, 1867, no. ii. pp. 129-153; Segunda Lista, No. iv. pp. 324-329, est. vi.

The first of these papers contains a list of 183 species from the Portuguese possessions in West Africa, of which specimens exist in the Museum at Lisbon, with the localities whence they were obtained. Eight species, belonging to the families *Caprimulgidae*, *Hirundinidae*, *Laniidae*, *Sylviidae* (2), *Ploceidae*, and *Columbidae* (2), are described as new, but several have no names assigned to them. In the second paper, three species, belonging to *Picidae*, *Sturnidae*, and *Tetraonidae*, are described as new, and some of those regarded in that light in the former paper are referred to previously known species. These two papers contain much that is valuable. (*Cf. Rev. Zool.* 1867, pp. 376, 377; *Ibis*, 1868, p. 345.)

CHAMBERS, W. T. H. A Month in Tripoli. *Ibis*, 1867, pp. 97-104.

It is with some doubt that we here class this paper; but as all the species observed are Ethiopian, while one of them (*Crateropus acaciæ*) seems not to be found in Algeria, we imagine that the limits of the Palearctic Region may not include Tripoli. The author's untimely death has frustrated his design of thoroughly investigating the little-known ornithology of this interesting district.

FINSCH, OTTO. Ueber ein Vogelsammlung aus Natal. *Journ. für Orn.* 1867, pp. 237-249.

An enumeration of 20 species collected near D'Urban, all of which, with one exception, have been before recorded from Natal; but some very valuable notes on their synonymy, especially on the African species of the genus *Merops*, are added by the author.

GRANDIDIER, ALFRED. Mammifères et Oiseaux nouveaux découverts à Madagascar et décrits. *Rev. et Mag. de Zool.* 1867, pp. 84-88.

Fourteen species of birds are described as new, belonging to *Falconidae*, *Strigidae*, *Muscicapidae*, *Sylviidae* (2), *Cuculidae* (6), and *Anatidae* (3); but in a subsequent note (*tom. cit.* pp. 254-256) the author states that eight of them have been known before; but he then adds another new bird, belonging also to *Sylviidae*.

— Notes sur les mammifères et les oiseaux observés à Madagascar, de 1865 à 1867. *Rev. et Mag. de Zool.* 1867, pp. 313-321, 353-360, 385-392, 417-420.

This series of papers contains short notes on 115 species; but it is certain that all of them have not been observed by the author. Of such as he has seen he mentions the colours of the irides and soft parts, but in few cases are any precise localities given. The series is concluded in the same journal for the present year. (Cf. *Ibis*, 1868, p. 223.)

HARTLAUB, G. Report on a Collection of Birds found in the Island of Zanzibar by Dr. John Kirk. *Proc. Zool. Soc.* 1867, pp. 823-828.

Forty-two species are enumerated, of which two (belonging to *Turdidæ* and *Tetraonidæ*) are new. There are only three exclusively eastern, six are essentially South-African, two of which extend up the western coast to Angola. Most of the remainder have a wider distribution.

HEUGLIN, M. TH. VON. Berichtungen und Noten zu Antinori's Katalog der nordost-afrikanischen Vögel. *Journ. für Orn.* 1867, pp. 198-207.

A good many corrections and notes on the Marquess O. Antinori's list (*Zool. Rec.* i. p. 48), the most important of which are noticed under the names of the species to which they refer. The number obtained by the Marquess is reduced, according to the author, from 254 to 251.

——. Die Brutcolonien des Archipels von Dahlak. *Journ. für Orn.* 1867, pp. 281-287.

An extract from the author's 'Reise nach Abessinien'—a work published in 1868. The Dhalak Islands are in the Red Sea, off Ansley Bay. The species observed breeding were *Dromas ardeola*, *Platalea leucorodia*, *Ardea schistacea*, *A. brevipes*, *Larus hemprichi*, *Sterna albigena*, *Phaeton æthereus*, and a few others.

——. Ueber die ornithologischen Arbeiten des Herzogs Paul Wilhelm von Württemberg, während seiner Reise in die oberen Nil-Länder. *Journ. für Orn.* 1867, pp. 289-304.

Very useful remarks on the birds figured in the Duke Paul of Württemberg's unpublished 'Icones,' of which a list appeared some years ago in the 'Naumannia' (1857, pp. 432-434). Descriptions of most of the good species are now for the first time published, and some of the other specimens in the Duke's collection at Mergentheim are identified.

——. Synopsis der Vögel Nord-Ost-Afrikas, des Nilquellengebietes und der Küstenländer des rothen Meeres. *Journ. für Orn.* 1867, pp. 361-398.

This is the beginning of a series of papers (continued in the same journal for the present year) which are to embody the ornithological results of the author's protracted wanderings in North-eastern Africa; and if the design be fully carried out, it will be of very great service; for his writings are so nume-

rous, and have so often been penned without his having the opportunity of consulting museums or books that a thorough revision of them is required. It follows of course that a very large number of species described by the author are now, and will be, identified with those described by other ornithologists. The present paper contains part of the *Fringillidae* and *Ploceidae*.

LAYARD, EDGAR LEOPOLD. The Birds of South Africa. A descriptive Catalogue of all the known Species occurring South of the 28th Parallel of South Latitude. Cape Town and London: 1867. 8vo, pp. 382.

The first work published professing to give a complete account of the ornithology of South Africa must needs be an important one. On the other hand, so scattered are the materials from which alone it is possible to compile such a work that it must needs have many defects. Some of these defects in the work before us are patent on the most cursory inspection of it, and they may not unnaturally lower its value in the eyes of experts. But the naturalist who can appreciate at their proper rate even somewhat serious errors of typography and a general amount of irregularity in the arrangement of details, will find much instruction in Mr. Layard's work, and feel thankful to its author. The design of the book is excellent; and if its execution somewhat fails, a practical naturalist will be disposed to make every allowance for the difficulties thereto belonging. Theoretically each species of the 702 hitherto recorded as having been found within the limits laid down by the author is diagnostically described, after a short and, we must add, often an imperfect, list of synonyms. Then follows a succinct account of its habits, generally from the observation of the author or one of his numerous friends, or, where such information was not available, from already published sources. Where the former obtains, the result is most satisfactory. The arrangement, and in great measure the nomenclature, of Mr. G. R. Gray's 'Genera of Birds' is followed; and the volume is supplied with a sufficiently good index. The chief faults of the work, in our opinion, are the number of species included in it for the occurrence of which in the colony there is little if any good show of reason. Next to this is a scantiness of reference to original authorities, and (as confessed by the author in his preface) an unconnectedness, or, we would say, a want of uniformity, in the treatment of the different species. But with all these drawbacks, the work is one of great utility, and evinces a great amount of labour bestowed on its production. In future every student of South-African ornithology will have to refer to it; and its effects on the pursuit of the science at the Cape will doubtless be as important as those produced in their respective spheres by Dr. Jerdon's 'Birds of India' and Mr. Gould's 'Handbook to the Birds of Australia.' One species, belonging to *Motacil-*

lidæ, is described as new. (Cf. *Ibis*, 1868, pp. 101, 102, 135-164, 242-248, 253-271; *Ann. & Mag. N. H.* 4th ser. i. pp. 383-385.)

LAYARD, EDGAR LEOPOLD. Letter on the ornithology of St. Helena. *Ibis*, 1867, pp. 248-252.

The "Wire-bird" is *Ægialites pecuarius* (Temm.).

——. Letter on the ornithology of the Crozette Islands. *Ibis*, 1867, pp. 457-460.

NEWTON, EDWARD. Descriptions of some New Birds from the Seychelles Islands. *Proc. Zool. Soc.* 1867, pp. 344-347, pl. xxii. Erratum, *tom. cit.* p. 821.

Prior to the author's visit to these islands only five species of land-birds were known to occur there. These were all peculiar to the group. He now describes seven new species, belonging to *Psittacidæ* (2), *Meliphagidæ* (2), *Muscicapidæ*, *Turdidæ*, and *Ploceidæ*.

——. On the Land-Birds of the Seychelles Archipelago. *Ibis*, 1867, pp. 335-360, pl. iv.

After a short description of the different islands of the group, where the author stayed a month, the different species previously known to live there are recited, and then follows an account of his proceedings there, the characters of the new birds being added from the paper just mentioned. All the 14 indigenous land-birds, except two (which have not been positively identified), are peculiar. A list of the birds observed in the archipelago, and a table of the distribution of the peculiar species in the several islands, with some remarks showing the Malagash tendency of the Seychelles *ornis*, conclude this interesting paper.

SCHLEGEL, H., et POLLEN, F. P. L. Recherches sur la Faune de Madagascar et de ses Dépendances, d'après les découvertes de MM. F. P. L. Pollen et D. C. van Dam. Mammifères et Oiseaux. Livraisons i., ii. Leyde: 1867. Roy. 8vo, pls.

This very beautiful work loses scarcely any interest by the fact that the most important discoveries of the travellers above named have already been made public (*Zool. Rec.* ii. pp. 71, 72, iii. p. 54). Some previous determinations of species are now retracted; but further improvements in this respect seem desirable. There is also some inconvenience caused by the authors each recounting his observations in the first person, leaving it to be gathered from the context which of them is actually giving his opinion. (Cf. *Ibis*, 1868, pp. 224-226.)

TAYLOR, E. CAVENDISH. Egypt Revisited. *Ibis*, 1867, pp. 48-73.

The results of the author's former visit (in 1853) were published in the first volume of the same journal (*Ibis*, 1859, pp. 41-55). The present is a list of the birds obtained or fully identified by him during both visits; but the remarks, unless the

contrary is stated, refer only to the latter, when he went up the Nile in the winter of 1863-64 as far as the First Cataract, and observed 168 species, a few of some rarity. The notes on the species of *Saxicola* are especially worthy of attention.

TRISTRAM, H. B. On new Species of Birds from South Africa. Proc. Zool. Soc. 1867, pp. 886-888. (*Cypselidæ* and *Sylviidæ*).

INDIAN REGION.

ADAMS, A. L. Wanderings of a Naturalist in India, the Western Himalayas, and Cashmere. Edinburgh: 1867. 8vo, pp. 333.

This work contains very numerous notes on the birds of the countries named, is agreeably written, and has a good index. Most of the scientific observations, however, have been previously placed on record by the author (P. Z. S. 1858, pp. 466-512). Sir W. Jardine has corrected the nomenclature. (Cf. *Ibis*, 1868, pp. 219, 220.)

BEAVAN, R. C. The Avifauna of the Andaman Islands. *Ibis*, 1867, pp. 314-334.

The exertions of Col. Tytler have added much to the knowledge of the birds of this group; and many of his notes are given in this paper, which includes 94 species, of which 14 (belonging to *Strigidae*, *Psittacidae*, *Cuculidae*, *Cypselidae*, *Hirundinidae*, *Oriolidae*, *Edoliidae*, *Dicruridae*, *Muscicapidae*, *Turdidae*, *Sturnidae*, *Ardeidae*, and *Anatidae*) are described as new; 22 are peculiar to the islands, so far as known; 6 are of uncertain determination; and 5 have been introduced. (Cf. *Ibis*, 1867, p. 466; and 1868, pp. 131, 132.)

— Notes on various Indian Birds. *Ibis*, 1867, pp. 430-455, pl. x.

In continuation of the paper in the same journal for 1865 (*Zool. Rec.* ii. p. 72). No new species are described, but many valuable details are given respecting some 80 species, particularly intended to supply information not furnished in Dr. Jerdon's work. *Piprisoma agile*, with its young, nest, and egg, forms the subject of the plate.

BLANFORD, W. T. Letter on the Ornithology of Nagpoor, Chanda, and Siroucha. *Ibis*, 1867, pp. 461-464.

Several species of great rarity met with, among them *Salpornis pylonota* (Frankl.).

— On a new species of *Callene* from the Pulney Hills, in Southern India. Proc. Zool. Soc. 1867, pp. 832-834, pl. xxxix. (See *Sylviidae*.)

BLYTH, EDWARD. The Ornithology of India.—A Commentary on Dr. Jerdon's 'Birds of India.' Ibis, 1867, pp. 1-48, 147-185.

These two papers, in continuation of the series noticed last year (Zool. Rec. iii. pp. 55, 56), treat respectively of the species contained in the two parts of Dr. Jerdon's second volume (or in the second and third volumes of his work if that computation be adopted). They are exactly of the same character as their predecessors; and students of Indian ornithology must make themselves acquainted with their contents if they wish to advance in the knowledge of their subject. In our 'Record' last year we erroneously stated that no species appeared to be described as absolutely new, overlooking three (belonging to *Strigidae*, *Cuculidae*, and *Campephagidae*) which were so. These are included in our present 'Record,' as well as notices of eleven others (belonging to *Cypselidae*, *Timaliidae*, *Dicruridae*, *Muscicapidae*, *Turdidae*, *Fringillidae*, and *Corvidae*), described by the author in 1865 (Zool. Rec. ii. pp. 72, 73), which we before omitted to mention. In the first paper of the two at present under notice, seven new species are described (belonging to *Sylviidae*, *Alaudidae*, and *Corvidae*). In the second, two new species only seem to be described; these belong to *Alaudidae*. It would be a hopeless attempt to give an idea of the many corrections of synonymy, and other valuable information, contained in this series of papers. In a further list of "Addenda" (pp. 312-314) another new species (*Strigidae*) is described, and a new genus (*Tetraonidae*) named.

— The Ornithology of Ceylon.—A Supplement to Dr. Jerdon's 'Birds of India.' Ibis, 1867, pp. 294-314.

This paper contains an enumeration of the Cinghalese species which are not admitted to Dr. Jerdon's work, and thereby supplies a want much felt. They are 41 in number, of which 37 have not been observed out of the island; but 10 of them are especially akin to as many Indian forms, and may be regarded as local specializations. The only peculiar generic form is *Phaenicophæus*, as distinguished from *Xanlostomus*. One or two cases of abnormal distribution are noticed; but it is possible that these may become less extraordinary when more is known of the *ornis* of Ceylon and of Southern India respectively. This paper is exactly in the same style as those on the ornithology of India; and to make a proper abstract of it is out of the question. Two species (belonging to *Psittacidae* and *Ploceidae*) receive new names. Some further "Addenda" to the 'Ornithology of India' are appended to this paper. (Cf. Ibis, 1867, pp. 467, 468.)

FRAUENFELD, GEORG VON. Beiträge zur Fauna der Nikobaren. Verhandl. k. k. zoolog.-botan. Gesellsch. Wien, 1867, pp. 591-598.

After briefly noticing the works of other writers on this group

of islands, where the author, in 1858, stayed some ten days, he gives a list of 34 species found by him in the most southern part of Kamorta, adding a few notes on some of them.

GOULD, JOHN. *The Birds of Asia*. Part xix. London: 1867. Imp. folio.

The customary annual part duly made its appearance. Little more than half the species included are really "Indian." The plates show an increased amount of care. (*Cf. Ibis*, 1868, p. 217.)

HUME, ALLAN. Extract from a Letter on Indian Ornithology. *Ibis*, 1867, pp. 471, 472.

SWINHOE, R. Jottings on Birds from my Amoy Journal. *Ibis*, 1867, pp. 226-237, 385-413.

These continue the valuable observations of the preeminently Chinese ornithologist, and contain a vast number of notes on various species. In the first paper, one species only (*Tantalidæ*) is described as new, but in the second no less than seven (*Timaliidæ*, *Laniidæ*, *Emberizidæ*, *Scolopacidæ*, *Charadriidæ*, *Procellariidæ*, and *Pelecanidæ*). Exception to some of these, however, has since been taken.

VERREAUX, JULES. Catalogue d'Oiseaux récoltés par Mgr. Perny, évêque du Su-tchuen, dans le nord de la Chine, et descriptions de deux espèces nouvelles. *Rev. et Mag. de Zool.* 1867, pp. 169-174, pls. xv., xvi.

Fifty-two species are enumerated, some of which are of considerable rarity; the new ones belong to *Nectariniidæ* and *Picidæ*; but the latter is described subsequently (pp. 271, 272).

AUSTRALIAN REGION.

BULLER, WALTER. Versuch über die Ornithologie Neu-Seelands. *Journ. für Orn.* 1867, pp. 305-347.

A translation, by Herr O. Finsch, of the essay noticed last year (*Zool. Rec.* iii. p. 57), with some valuable notes by the translator (*vide infra*).

DIGGLES, SYLVESTER. *The Ornithology of Australia*. Queensland. Imp. 4to. Parts XI.-XV., pls.

Five more parts of this work (*cf. Zool. Rec.* iii. pp. 57, 58) have reached England. The most important species noticed and figured is the *Casuarius* of Australia.

FINSCH, OTTO. Walter Buller's 'Versuch über die Ornithologie Neu-Seelands,' übersetzt und mit kritischen Anmerkungen versehen. *Journ. für Orn.* 1867, pp. 305-347.

Mr. Buller's treatise was noticed by us last year (*Zool. Rec.* iii. p. 57). The translator's introduction and notes are very valuable. "*Mimus carunculatus*, Bull." (*Zool. Rec.* iii. p. 95)

is referred to the genus *Anthochera*, and called *A. bulleri*. The number of New-Zealand birds is raised to 144, including two of the three described recently by Herr von Pelzeln (*vide infra*).

FINSCH, OTTO, und HARTLAUB, G. Beitrag zur Fauna Central-polynesiens. Ornithologie der Viti-, Samoa- und Tonga-Inseln. Halle: 1867. Roy. 8vo, pp. 290, pls. 14.

This is one of the most interesting and valuable works of the past year, and, besides being an important contribution to the knowledge of geographical ornithology, it adds largely to our acquaintance with the fauna of Polynesia. The materials for it are chiefly furnished by the collections of Dr. E. Gräffe in the Feejee and Navigator's Islands, including in the second the distant outlier of Uea or Wallis's Island. But the birds of the Friendly Islands are also included, though they are but little known since the days of Cook. The introduction contains a careful historical notice of the various authorities on the subject, and is concluded by an excellent table showing the geographical extension of the 172 species of Polynesia, of which it would appear that about 100 are found within the author's limits, 59 being met with in the Feejees, 48 in the Navigator's, and 31 in the Friendly group, while 18 seem to be peculiar to the first, 14 to the second, and 4 to the third. Species to the number of 37 are common to Australia, among which occur many well-marked Australian forms; while, on the other hand, many of those that are absolutely wanting in Australia are also wanting here.

Each species is very carefully described in the body of the work, with an elaborate list of authorities for its occurrence either within the limits mentioned or without them; and much useful information is also added, especially with regard to rectification of nomenclature. Seven new species appear to be described, belonging to the families *Alcedinidæ* (2), *Meliphagidæ*, *Fringillidæ*, *Sturnidæ*, *Rallidæ*, and *Procellariidæ*; a good many, or their eggs, are also figured. [See "Oology."] (Cf. *Ibis*, 1867, pp. 245, 246; 1868, pp. 107-109.)

FRAUENFELD, GEORG VON. Zur Flora und Fauna von Neu-caledonien. Verhandl. k. k. zool.-bot. Gesellsch. 1867, pp. 464-493.

This paper contains (pp. 59-61) a nominal list of the birds of New Caledonia, 81 in number; but no notes on them are added, except the suggestion that several of them are easily domesticated, among them *Rhinochetus jubatus*.

GOULD, JOHN. The Birds of Australia. Supplement—Part iv. London: 1867. Imp. folio.

The preceding part of this 'Supplement' was published in 1859. Seventeen species are now figured in the author's usual 1867. [VOL. IV.]

admirable style. Of these, one (belonging to *Columbidae*) is described also as being new. (Cf. *Ibis*, 1868, pp. 217, 218.)

GOULD, JOHN. Description of a New Australian Bird pertaining to the genus *Malurus*. *Proc. Zool. Soc.* 1867, pp. 302, 303.

—. On two new Birds from Eastern Australia. *Ann. & Mag. Nat. Hist.* 3rd. ser. xx. pp. 269, 270. (See *Cuculidae* and *Meliphagidae*.)

HAAST, JULIUS. Report on the Headwaters of the River Rakaia. Christchurch [New Zealand]: 1866. Sm. fol. pp. 73.

Contains some interesting notes on the ornithology of the Alpine Regions of New Zealand, about which there is probably much more to be learned.

HARTLAUB, G. On a Collection of Birds from some less-known Localities in the Western Pacific. *Proc. Zool. Soc.* 1867, pp. 828-832.

The collection was made at the Pelew, Matelotas, and Mackenzie Islands, with the Bougainville group near New Guinea. It contains 23 species, 4 of which (belonging to *Muscicapidae* and 2 to *Megapodiidae*) are probably new.

—. (See FINSCH, O.)

KAUP, J. J. On the *Nisi* and *Astures* of the Indian Archipelago and of New Holland. (See ACCIPITRES.)

KREFFT, GERARD. Notes on the Mammals and Birds of Cape York, &c. *Proc. Zool. Soc.* 1867, pp. 316-319.

The only ornithological facts relate to species of *Pitta*.

M'COY, FREDERICK. On two new Species of Birds found in Victoria. *Ann. & Mag. Nat. Hist.* 3rd ser. xix. pp. 184, 185. (See *Ampelidae* and *Maluridae*.)

—. On the Recent Zoology and Palæontology of Victoria. *Op. cit.* xx. pp. 175-202.

This is a notice drawn up for the Intercolonial Exhibition at Melbourne. The ornithological part is limited to pages 177-181, and consists of a nominal list of the species (over 300 in number) occurring in Victoria, to which are prefixed a few words on five of the rarest.

—. On a new species of Victorian Honey-eater. *Tom. cit.* p. 442. (See *Meliphagidae*.)

PELZELN, AUGUST VON. Ueber eine von Herrn Julius Haast erhaltene Sendung von Vogelbälgen aus Neu-Seeland. *Verhandl. k. k. zool.-bot. Gesellsch. Wien*, 1867, pp. 315-318.

The collection contained 20 species, of which two (belonging to *Meliphagidae* and *Certhiidae*) are new; but no precise localities are given for any of the specimens. The author takes the op-

portunity of describing a third new species from New Zealand (*Corvidæ*). (Cf. *Ibis*, 1868, p. 227.)

ROSENBERG, H. VON. Een woord over den Grooten Paradijsvogel (*Paradisæa apoda*), gevolgd door eene korte beschrijving van eenige nieuwe, gedurende mijnen reistogt naar de Aroe- en Kei-Eilanden, ontdekte Vogelsoorten. *Natuurk. Tijdschr. voor Nederl. Indië*, xxix. (1866) pp. 136-145.

The supposed new species are seven in number, but all have been shown by Prof. Schlegel to have been already described. (*Zool. Rec.* iii. pp. 103-109.)

NEARCTIC REGION.

BAIRD, S. F. The Distribution and Migrations of North American Birds. *Ibis*, 1867, pp. 257-293.

A reprint in full of the able article we noticed last year. (*Zool. Rec.* iii. pp. 59, 60.)

BREWER, T. M. Some Errors regarding the Habits of our Birds. *American Naturalist*, 1867, pp. 113-123.

The erroneous statements corrected chiefly have to do with nidification or oology, and are from the works of Wilson, Audubon, Nuttall, and the author himself.

ELLIOT, D. G. The Birds of North America. Parts III.-VIII. New York: 1867. Imp. fol.

Six parts, each containing five plates, of this great work made their appearance in the course of the year. The species figured will be found named under the notice of the families to which they belong. (Cf. *Ibis*, 1867, p. 376, and 1868, p. 345.)

LAWRENCE, GEORGE N. Descriptions of New Species of American Birds. *Ann. Lyc. N. H.* New York, 1867, pp. 466-482. [See "NEOTROPICAL REGION."]

M'ILWRAITH, T. List of Birds observed near Hamilton, Canada West. *Proc. Essex Inst.* vol. v. pp. 79-96.

The author's observations extend over a period of ten years; 241 species are included by him as having been found in the locality.

SAMUELS, EDWARD A. Ornithology and Oölogy of New England, &c. Boston: 1867. 8vo, pp. 583, pls.

A popular work, of which the scientific portion is chiefly taken from Prof. Baird's well-known 'Birds of North America,' and the accounts of the habits and so forth of the species compiled mainly from Wilson, Audubon, Nuttall, and other writers; but some original and hitherto unpublished notes on the birds of Lower Canada, by Mr. William Couper, are also inserted. The illustrations are extremely moderate, and, none of them being either novel or sufficiently characteristic to be of much use to

the inquirer, we do not think it necessary to give a list of the species figured. [See "Oology."] [Cf. *American Naturalist*, 1867, pp. 318-320.]

NEOTROPICAL REGION.

BRYANT, HENRY. Additions to a List of Birds seen at the Bahamas. *Proc. Boston Soc. Nat. Hist.* xi. (1866) pp. 63-70.

The author visited the islands in 1859, and soon after published a list of the birds he saw there (*Proc. Boston Soc. N. H.* vii. p. 102). Wishing to know more about them he returned thither in 1865-66; and this paper contains his observations on the 31 species he there met with, which either he did not see during his first visit or else present some new feature worthy of notice. Only one (belonging to *Mniotiltidae*) is described as new, but of two others (*Tyrannidae* and *Turdidae*) varieties are noticed. (Cf. *Ibis*, 1868, pp. 229, 230.)

— A List of the Birds of St. Domingo, with Descriptions of some New Species or Varieties. *Proc. Boston Soc. Nat. Hist.* xi. (1866) pp. 89-98.

This list is founded on three collections—that of M. Sallé (*P. Z. S.* 1857, p. 230), made in the eastern or Dominican end of the island, and two others from the western or Haytian, which have not before been catalogued. In all, 79 species are included, of which one is new (*Fringillidae*), and varieties of others (*Hirundinidae*, *Tyrannidae*, and *Turdidae*) to the number of four are described.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Brasiliens. *Journ. für Orn.* 1867, pp. 177-198, 217-233, 399-420.

A very valuable and interesting series of papers. After describing at some length the physical features of the district of Cantagallo, situated between the northern slopes of the Serra de Nova Friburgo and the river Parahyba, in which his observations were made, the author proceeds to give an account of the times and habits of breeding of the birds inhabiting it, to the number of about 400 species, of which he has obtained about 250 at Cantagallo. The nomenclature employed is that of the late Prince Maximilian of Wied. To the first article three tables are appended, adding much to the facility of reference. These show (1) the times at which the different species lay their eggs, in chronological order, (2) the same arranged according to the species, and (3) the maximum number of eggs of each. The two remaining papers contain various careful observations on the nests and eggs of the birds noticed.

LANDBECK, L. Contribuciones a la Ornitología de Chile. *Anales*

de la Universidad de Chile, tom. xxiv. no. 4. (April 1864), pp. 336-348.

A Spanish version of the first paper by the author and Dr. Philippi in the 'Archiv für Naturgeschichte' (Zool. Rec. ii. p. 81), and of the paper in the same periodical by the author alone (Zool. Rec. ii. p. 80).

LAWRENCE, GEORGE N. Descriptions of New Species of American Birds. Ann. Lyc. N. H. New York, 1867, pp. 466-482.

We place our remarks on this paper here, because a bare majority of the *nineteen* species described belong to the Neotropical Region (see *Trochilidæ*, *Formicariidæ*, *Dendrocolaptidæ*, *Cotingidæ*, *Tyrannidæ*, *Tanagridæ*, *Fringillidæ*, *Tetraonidæ*); but the rest would appear to come into the Nearctic avifauna. Some of the species are asserted to be not new (Ibis, 1868, pp. 114, 115).

——. Notes on certain Birds from New Granada, with descriptions of New Species. Proc. Acad. Nat. Sci. Philad. 1867, pp. 94, 95.

These refer to three species only, two of *Tanagridæ* and one of *Columbidæ*. (Cf. Ibis, 1868, p. 230.)

——. Descriptions of Five New Species of Central American Birds. Proc. Acad. Nat. Sc. Philadelphia, 1867, pp. 232-234.

They belong to *Trochilidæ* (3), *Cuculidæ*, and *Rallidæ*.

SALVIN, OSBERT. On some Collections of Birds from Veragua. Proc. Zool. Soc. 1867, pp. 129-161, pl. xiv.

After giving a very complete summary of what had been previously known of the ornithology of the district (which is compounded of that of the neighbouring districts of Panama and Costa Rica, with the addition of some few peculiar forms), the author proceeds to enumerate 220 species sent thence by one of his collectors (cf. Zool. Rec. iii. p. 64). Of these, 23 had not previously been noticed as belonging to Central America; and some valuable observations on the physical geography of the district are added. Two new species are described, belonging to *Cracidæ* and *Tetraonidæ*, and *Buarremon crassirostris* is figured.

SCLATER, P. L. Notes on the Birds of Chili. *Tom. cit.* pp. 319-340.

After a summary of the literature of the subject subsequent to Dr. Hartlaub's paper (Naumannia, 1853, pp. 207-222), the author treats very concisely the different families of birds known to occur in Chili, with especial reference to the species recently described by Messrs. Philippi and Landbeck (Zool. Rec. ii. pp. 80, 81, iii. p. 64), with types of which they have supplied him. Mr. Sclater is therefore able to speak with authority re-

specting them. He concludes with a nominal list of Chilian birds, 209 in number.

SCLATER, P. L. On the Birds of the vicinity of Lima, Peru.

With Notes on their Habits, by Professor W. NATION.

Part II. *Tom. cit.* pp. 340-344, pls. xx. xxi.

A continuation of the paper noticed last year (*Zool. Rec.* iii. p. 64). Twelve species are mentioned, of which two (belonging to *Fringillidæ* and *Rallidæ*) are named as new.

——. Remarks on *Dr. Léotaud's* 'Birds of Trinidad.' *Ibis*, 1867, pp. 104-108.

Léotaud's book (*Zool. Rec.* iii. pp. 63, 64) contains very few serious faults; but he is wrong in supposing that Trinidad has anything in common with the other West-India Islands; and the species which are common to the first and to North America probably find their way thither by Venezuela. Notes on some dozen species follow; but by these we benefited in our 'Record' last year, and the substance of them will be found incorporated with our extracts from Léotaud's work.

SCLATER, P. L., and SALVIN, OSBERT. List of Birds collected on the Blewfields River, Mosquito Coast, by Mr. Henry Wickham. *Proc. Zool. Soc.* 1867, pp. 278-280.

No collections from this district had hitherto been examined by the authors. The nearest point of the ornithology of which any account has been published is Greytown (*cf. Zool. Rec.* ii. p. 81). Mr. Wickham's collection contains 39 species, of which none are new, but the district being one of interest (for it is somewhere here that the fauna of Guatemala passes into that of Costa Rica) a complete list of it is given. Some seven species in it have not before been recorded from a locality so far north.

——, ——, List of Birds collected by Mr. Wallace on the Lower Amazons and Rio Negro. *Tom. cit.* pp. 566-596, pls. xxix., xxx.

This very praiseworthy paper is a successful attempt to set forth the *ornis* of the districts to which it refers, and is as complete as it could possibly be made, considering that the bulk of Mr. Wallace's collections perished by fire on their way home, while some other portions have been dispersed without being catalogued. After naming the chief localities at which the specimens were obtained, the authors give a careful list of the 282 species (3 of which, belonging to *Vireonidæ* (2) and *Cotingidæ*, are new) to which they are referred; and then follow some highly interesting generalizations on the avifauna of the country, the results of which fully agree with the conclusions drawn by Mr. Bates from a consideration of the Diurnal Lepidoptera of the Amazon-valley (*Trans. Entom. Soc. n. s.* xv. pp. 223-335), and may be

briefly stated thus :—(1) The Para district belongs to the same zoological province as the Guianas, and has received its birds mainly thence. (2) In certain cases (17 per cent. of the whole number, excluding species of general distribution) variation has arisen, resulting in the production of new specific forms of greater or less distinctness. (3) In some of these cases the Amazons has operated as a barrier, isolating the derived forms from their Guianan allies, thereby leading to accumulated variations, ultimately resulting in the specific differences now observable.

SCLATER, P. L., and SALVIN, OSBERT. Catalogue of Birds collected by Mr. E. Bartlett on the River Huallega, Eastern Peru, with Notes and Descriptions of New Species. *Tom. cit.* pp. 748–759, pl. xxxiv.

The collection contained nearly 1000 specimens, belonging to 205 species, and was chiefly made at Yurimaguas, Xeberos, and Chyavetas, on or near the river named. Several species are not precisely determined; but only five, belonging to the families *Picidae*, *Cypselidae*, *Dendrocolaptidae*, and *Formicariidae* (2), are characterized as previously undescribed, which is probably owing to the fact that Mr. Hauxwell collected largely in the same district.

—, —. List of Birds collected at Pebas, Upper Amazons, by Mr. John Hauxwell, with Notes and Descriptions of New Species. *Tom. cit.* pp. 977–981, pl. xlv.

The list contains 135 species, of which notes are added respecting seven, four of them (belonging to *Formicariidae*, *Tyrannidae*, *Fringillidae*, and *Rallidae*) being described as new.

—, —. On Peruvian Birds collected by Mr. Whitely. Part I. *Tom. cit.* pp. 982–991, pl. xlv.

This contains an account of the birds obtained by the collector in his expedition to South-western Peru, and includes 58 species, none of which appear to be new, though several rectifications of synonymy are made.

ANATOMY AND PHYSIOLOGY.

COUES, ELLIOTT. On the Osteology and Myology of *Colymbus torquatus*. Mem. Boston Soc. Nat. Hist. i. pp. 131–172, pl. v.

A very good monograph, most plainly written. (*Cf.* Ibis, 1868, p. 229.)

ERTON, T. C. Osteologia Avium; or, a sketch of the Osteology of Birds. Wellington, Salop: 1867. 4to, pp. 229, pls.

The publication of this work was commenced in 1858 (Ibis, 1859, p. 101); and the fourteen successive parts have since ap-

peared at intervals so irregular that it is impossible for us to say precisely how much of the whole belongs to the period to which this 'Record' properly refers. However, the volume was completed last year, and a very valuable one it is, besides being quite unique of its kind. It contains a series of plates, by Mr. Erxleben, over 110 in number, with figures of skeletons, or parts of skeletons, of birds, and so well selected from the author's rich and well-authenticated collection, that nearly all the principal forms of bird-structure are represented; but it is a drawback that the plates are numbered or lettered in such a manner as to render reference to them awkward. The letterpress consists of short descriptions of the osteology of upwards of 450 species, systematically arranged, interspersed with general remarks at the end of each order. Mr. Eyton's classification is founded almost entirely on osteological characters. He divides birds into thirteen orders, as follows:—

I. RAPTORES—(1) *Vulturidæ*, (2) *Falconidæ*, (3) *Strigidæ*; II. VOLITORES—(1) *Trochilidæ*, (2) *Cypselidæ*; III. OMNIVORES—(1) *Caprimulgidæ*, (2) *Trogonidæ*, (3) *Alcedinidæ*, (4) *Buceridæ* [qu. *Bucerotidæ*?]; IV. PREHENSORES—(1) *Psittacidæ*, (2) *Rhamphastidæ*; V. SCANSORES—(1) *Picidæ*; VI. ERUCIVORES—(1) *Cuculidæ*, (2) *Musophagidæ*; VII. INSESSORES—(1) *Menuridæ*, (2) *Certhiidæ*, (3) *Meliphagidæ*, (4) *Paridæ*, (5) *Alaudidæ*, (6) *Motacillidæ*, (7) *Sylviidæ*, (8) *Muscicapidæ*, (9) *Ampelidæ*, (10) *Laniidæ*, (11) *Turdidæ*, (12) *Oriolidæ*, (13) *Sturnidæ*, (14) *Fringillidæ*, (15) *Tanagridæ*, (16) *Corvidæ*; VIII. BIPOSITORES—(1) *Columbidæ*, (2) *Dididæ*; IX. RASORES—(1) *Tetraonidæ*, (2) *Phasianidæ*; X. CURSORES—(1) *Struthionidæ*; XI. LITTORES—(1) *Otidæ* [qu. *Otididæ*?], (2) *Charadriidæ*, (3) *Scolopacidæ*, (4) *Tringidæ*; XII. GRALLATOIRES—(1) *Ardeidæ*, (2) *Rallidæ*; XIII. NATATOIRES—(1) *Anatidæ*, (2) *Colymbidæ*, (3) *Alcidæ*, (4) *Pelecanidæ*, (5) *Laridæ*. (Cf. Ibis, 1868, pp. 98, 99; Journ. Anat. & Physiol. ii. p. 391.)

HASSE, C. Der Bogenapparat der Vögel. Zeitschr. für wissenschaftl. Zoologie, 1867, pp. 598–345, Taf. xxxvii., xxxviii. Nachtrag, tom. cit. pp. 646–654.

A very elaborate dissertation on the auditory apparatus of birds.

HUXLEY, THOMAS H. On the Classification of Birds; and on the Taxonomic Value of the Modifications of certain of the Cranial Bones observable in that Class. Proc. Zool. Soc. 1867, pp. 415–472.

[See under "GENERAL SUBJECT."]

MILNE-EDWARDS, A. Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux Fossiles de la France. Livr. 1–17. Paris: 1867. 4to, pls.

[See under "GENERAL SUBJECT."]

—. Note Additionnelle sur l'appareil respiratoire de quelques Oiseaux. Ann. des Sc. Nat. 5^e sér. Zool. vii. pp. 12–14.

Since the publication of his former paper on this subject (Zool. Rec. ii. p. 86), the author has had occasion to find that the diffused condition of the respiratory apparatus is less rare than he had supposed, and adduces examples dissected by him of *Argala dubia* and *Buceros bicornis* in support of his view.

MURIE, JAMES. On *Cygnus buccinator*, Richardson, and *C. passmorii*, Hincks. Proc. Zool. Soc. 1867, pp. 8-13.

A careful comparison of the differences observable in parts of the osteology of some specimens of American Swans, leading to the conclusion that *C. passmorii* is not specifically distinct from *C. buccinator*. The sterna of both are figured.

——. On the tracheal Pouch of the Emu (*Dromæus novæ-hollandiæ*, Vieill.). Tom. cit. pp. 405-415.

The bibliography of this remarkable structure is first given, and then a very minute description of it, illustrated by figures. Its function, the author is inclined to suppose, may be that of a sexual organ of sound during the breeding-season. It is considered to be homologous with the tracheal sac of the Chamæleon, and in this light to be another proof of the Reptilian affinities of the *Struthionæ*.

——. On the dermal and visceral structure of *Rhinocetus*, *Eurypyga*, and *Cancroma*. Tom. cit. p. 475.

To be published hereafter in the Society's 'Transactions.'

OWEN, R. On *Dinornis* (Part IX.): containing a description of the Skull, Atlas, and Scapulo-coracoid Bone of the *D. robustus*, Owen. Trans. Zool. Soc. v. pp. 337-358, pls. liii.-lvi.

A continuation of the author's well-known series of valuable memoirs on this group of birds. The head is very minutely described. The scapula and coracoid are confluent, as in *Apteryx*, but the latter is relatively much broader. There is no trace of a glenoid cavity for the articulation of a wing, but in its place a rough ridge to which any rudiment of a humerus, if such existed, must have been attached; Prof. Owen, however, thinks that fore limbs were entirely wanting in this bird.

——. On *Dinornis* (Part X.): containing a description of part of the Skeleton of a flightless Bird indicative of a New Genus and Species (*Cnemidornis calcitrans*, Ow.). Trans. Zool. Soc. v. pp. 395-404, pls. lxiii.-lxvii.

This form (Zool. Rec. ii. p. 138) was remarkable for the extraordinary development of the epicnemial, procnemial, and ectocnemial processes of the tibia. It also differed from *Dinornis* by possessing wings, though they were too short to admit of flight. The remains described and figured consist of cervical and dorsal vertebræ, pelvis, portions of the sternum, humerus, femur, tibia, fibula, and metatarsus. The femur of *Aptornis* and metatarsus of *Dinornis geranoides* are also figured.

SCHMIDT, MAX. Das Skelet der Hausvögel in geometrischen Zeichnungen auf 15 lithographirten Tafeln dargestellt und mit erläuterndem Texte versehen. Frankfurt: 1867. Large fol.

This work we have not seen. It is highly spoken of by Prof. Pagenstecher (Zoolog. Garten, 1867, pp. 358, 359).

TURNER, W. Remarks on the assumption of Male Plumage by the Hen of the Domestic Fowl. Proc. Roy. Physical Soc. Edinburgh, iii. pp. 297-299.

A confirmation of much that has been previously advanced on the subject.

PTERYLOLOGY.

NITZSCH [C. L.] Pterylography, translated [by W. S. DALLAS] from the German. London: 1867. Edited by P. L. SCLATER. Fol. pp. 181, pls. x. (Ray Society.)

The Ray Society could not have done better than select as their first ornithological publication the work of Nitzsch, which, though the foundation of all subsequent investigations on the subject, has hitherto met with undeserved neglect. The Society also has been most fortunate in finding an editor and translator fully equal to their respective tasks, as well as obtaining the original excellent copper-plates by which the book is illustrated.

The original work was edited by Prof. Burmeister after the author's death, and appeared in 1840 (Halle, 4to), the prefatory portion only having been published during his lifetime in 1833. To most ornithologists its contents, nay even the subject of which it treats is comparatively unknown. We may therefore be excused for saying more of it here than we generally do of translations or reprints.

The first part is devoted to "General Pterylography," and, after a few preliminary remarks, treats of the structure of feathers and their principal differences. A perfect feather consists of six parts—(1) stem, (2) aftershaft, (3) barbs, (4) barbules, (5) barbicels, and (6) hooklets, the development of which is fully explained. There are three principal forms of feathers—(1) pennaceous, (2) downy, and (3) filoplumaceous. Again, feathers are of four different kinds—(1) contour- or surface-feathers, (2) down-feathers, (3) semiplumes, and (4) filoplumes. Next the distribution of the plumage of birds in definite tracts is considered. Nine such tracts (*pterylæ*) clothed with contour-feathers (some of which are in pairs) may be distinguished; in particular (1) the dorsal, (2) humeral, (3) femoral or lumbar, and (4) inferior; but in a few birds there are besides (5) lateral neck-tracts; and the other parts similarly covered furnish (6) the head, (7) alar, (8) crural, and (9) caudal tracts. Between these occur featherless

spaces (*apteria*), especially (1) the lateral neck-, (2) the lateral trunk-, and (3) the inferior spaces, besides, more or less commonly, (4) the spinal, (5) upper wing-, (6) lower wing-, (7) crural, and (8) head-spaces. These tracts and spaces are then treated of generally, and subsequently each by itself, after which a chapter is devoted to the curious "powder-down feathers" found only in some birds; and another chapter, on the anal oil-gland, concludes the first part of the work.

The second part relates to "Special Pterylography;" and birds are taken group by group, the arrangement being based on their pterylogical characters as follows:—

ACCIPITRINÆ: (I.) *Acc. diurnæ*. A. Old-world Vultures. B. New-world Vultures. C. Falcons. (II.) *Acc. nocturnæ*.

PASSERINÆ: (1) *Corvinæ*, (2) *Paradiseidæ*, (3) *Ampelidæ*, (4) *Tanagridæ*, (5) *Fringillidæ* (*Coniostres*), (6) *Sturnidæ*, (7) *Dentirostres* (*Laniidæ*, *Muscicapidæ*), (8) *Subulirostres*, (9) *Certhiaceæ*, (10) *Hirundinidæ*.

PICARLÆ: (1) *Macrochires*, (2) *Caprimulginae*, (3) *Todidæ*, (4) *Cuculinae*, [5 caret; an errore ?], (6) *Picinae*, (7) *Psittacinae*, (8) *Lipoglossæ*, (9) *Amphibolæ*.

COLUMBINÆ: (1) *Columba*, (2) *Pterocles*.

GALLINÆ: (1) *Tetraonidæ*, (2) *Phasianidæ*, (3) *Penelopidæ*, (4) *Crypturidæ*.

PLATYSTERNÆ: [*Struthiones*.]

GRALLÆ: (1) *Alectorides*, (2) *Fulicariæ*, (3) *Erodii*, (4) *Pelargi*, (5) *Odonotoglossi*, (6) *Hemiglottides*, (7) *Limicolæ*.

NATATORES: (1) *Longipennes*, (2) *Nasuta*, (3) *Unguirostris*, (4) *Steganopodes*, (5) *Pygopodes*.

We have not space to indicate the further subdivisions, and it is to be regretted that there is no extended paradigm of the classification in the work itself; but this want is probably to be ascribed to the natural diffidence of the editors, both German and English.

The volume is most unnecessarily and inconveniently published in folio. To it are added, by way of Appendix, reprints of Mr. Bartlett's paper "On the Affinities of *Baleniceps*" (Proc. Zool. Soc. 1861, pp. 131-134) and Mr. Sclater's "On the Structure of *Leptosoma discolor*" (Zool. Rec. ii. p. 88), as well as of the author's 'Observationes de Avium Arteria carotide communi' (Halæ: 1829). (Cf. *Ibis*, 1865, p. 118, 1868, pp. 96-98; Journ. Anat. & Physiol. vol. ii. p. 391.)

SCLATER, P. L. [See NITZSCH.]

TSCHUSI, VICTOR VON. Notizen über Farbenvarietäten bei Vögeln. Verhandl. k. k. zool.-bot. Gesellsch. Wien, 1867, pp. 687-692.

Thirty-four species are enumerated, in which variations of colour have been observed.

NEOSSOLOGY.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See "PALÆARCTIC REGION."]

The young of *Alcedo ispida*, *Sitta europæa*, *Starna perdix*, *Pyrgula montana*, *Calamoherpe arundinacea* (Gm.), *Fringilla cœlebs*, *Mecistura caudata*, *Passer italicæ*, *Merula vulgaris*, *Caprimulgus europæus*, *Picus major*, *Scops zorca*, *Palumbus torquatus* (fig. opt. !), *Turdus viscivorus*, *Athene noctua*, *Chlorospiza chloris*, *Parus major*, *Emberiza citrinella*, and *Garrulus glandarius* are figured.

GOULD, JOHN. The Birds of Great Britain. London: 1867.

Part XI. contains figures of the young of *Pelidna cinclus*, and Part XII. those of *Merula torquata* and *Oedemia fusca*.

MARCHAND, ALB. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1867.

The species represented during the past year are:—

Tetrao urogallus	pl. 4	Otis tarda	pl. 10
Anas sponso.	" 5	Numenius arquatus	" 11
Pandion haliaetus	" 6	Anser ægyptiacus.	" 12
Tetrao tetrax	" 7	Anas boschas.	" 13
Totanus glareola.	" 8	Ardea minuta	" 23
— calidris	" 9	Anas crecca	" 24

No letterpress accompanies this series of plates (cf. Zool. Rec. iii. p. 70).

OOLOGY AND NIDIFICATION.

BÆDEKER, F. W. J. Die Eier der europäischen Vögel, nach der Natur gemalt. Mit einer Beschreibung des Nestbaues gemeinschaftlich bearbeitet mit L. BREHM und W. PÄSSLER. Supplement. Leipzig und Iserlohn. Fol.

This consists of four sheets of letterpress, published, we believe, at the end of last year. Its authorship must be ascribed to Herr Pässler, who has here supplied some short supplementary notices to the accounts of various species mentioned in the work in which he had a hand, and which work was completed in 1863. (Cf. Ibis, 1868, p. 341.)

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See "PALÆARCTIC REGION."]

On Plate I. of this work eggs of the following are figured:—

Scops zorca (2), *Athene noctua* (2), *Strix flammea* (2), *Starna perdix*, *Sturnus vulgaris* (3), *Petrocosyphus cyaneus* (2), *Monticola saxatilis* (2), *Saxicola ananthe* (3), *Pratincola rubetra* (2), *Philomela luscinia* (2), *Chelidon urbica* (2), *Cotyle riparia* (2), *Gecinus viridis* (2), *Yunx torquilla* (5); *Alcedo ispida*, *Upupa epops* (2), *Columba livia* (3), *Palumbus torquatus* (2), *Turtur auritus* (2), *Cypselus melba*, *C. apus* (2), *Ardeola minuta* (3), *Ardea purpurea* (2), *Phasianus colchicus* (2); and on Plate II. those of:—

Curruca atricapilla (8), *Sylvia cinerea* (4), *Certhia familiaris* (3), *Sitta europæa* (3), *Passer italicæ* (6), *Alauda arborea* (5), *Parus major* (6), *Butalis griseola* (6), *Caprimulgus europæus* (4), *Coturnix communis* (5).

BLASIUS, RUDOLF. Ueber die Bildung, Structur und systematische Bedeutung der Eischeale der Vögel. Zeitschr. für

wissensch. Zoologie, 1867, pp. 480-524, pls. xxix., xxx.
[Also Leipzig: 1867. 8vo, pp. 48, pls. 2.]

In consequence of Dr. Landois's investigations (Zool. Rec. ii. pp. 85, 86) the author was led to the microscopical examination of egg-shells, but finds therein little, if any, help to classification. The layers of which the shell is composed vary, and this is especially the case with the main layer. Copious lists of writers who have before treated the subject are given. (Cf. Ibis, 1868, pp. 228, 229.)

BROWN, J. A. H. Extracts from a Journal of a Nesting-Tour in Sutherland in 1867. Zoologist, Second Series, pp. 851-865.

The extracts are followed by a list of the birds of the western part of the county, but none not hitherto recorded as found there were met with.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Bra-siliens.

For a notice of these "Contributions," which contain much valuable oological information, see above ("NEOTROPICAL RE-GION"), p. 68.

FINSCH, OTTO, und HARTLAUB, G. Beitrag zur Fauna Central-polynesiens, u. s. w.

Some general remarks on this work will be found above ("AUSTRALIAN REGION"). Eggs of the following are figured (not too well) :—

Ptilotis carunculata, Taf. i. fig. 2 (and nest).	Porphyrio vitiensis, Taf. iii. fig. 2.
Merula vanicorensis, Taf. i. fig. 3.	Rallus pectoralis, Taf. iii. fig. 3.
Aplona tabuensis, Taf. i. fig. 4.	Rallina pœcilopectera, Taf. iii. fig. 4, and Taf. xiv. fig. 8.
Artamus mentalis, Taf. i. fig. 5.	Puffinus nugax, Taf. iii. fig. 5.
Rhipidura nebulosa, Taf. i. fig. 6.	Dysporus sula, Taf. iii. fig. 6.
Zosterops flaviceps, Taf. i. fig. 7.	Sterna panaya, Taf. iv. figg. 1-3.
Astur cruentus, Taf. ii. fig. 1, and Taf. xiv. figg. 1, 2.	Anous cinereus, Taf. iv. figg. 4, 5.
Platycercus splendens, Taf. ii. fig. 2.	Circus assimilis, Taf. xiv. fig. 3.
Ptilinopus fasciatus, Taf. ii. fig. 3.	Collocalia spodiopygia, Taf. xiv. fig. 4 (and nest).
Chrysena luteovirens, Taf. ii. fig. 4.	Myiagra castaneiventris, Taf. xiv. fig. 6.
Megapodius pritchardi, Taf. ii. fig. 5.	Columba vitiensis, Taf. xiv. fig. 7.
Didunculus strigirostris, Taf. iii. fig. 1.	

GRANDIDIER, A. Observations sur le gisement des œufs de l'Épiornis. Compt. Rendus, lxx. pp. 476-478.

The locality where remains of *Épyornis* have been found is in the south-western part of Madagascar, near Cape St. Mary. The eggs lie in sandy dunes, and are usually exposed by the action of running water. Though probably living at no distant date, the bird, without doubt, no longer exists. (Cf. Ibis, 1868, pp. 65-68.)

HECTOR, JAMES. Notice of an Egg of the Great Moa (*Dinornis*

gigantea), containing remains of an embryo, found in the province of Otago, New Zealand. Proc. Zool. Soc. 1867, pp. 991, 992.

It measured 8.9 in. by 6.1 in., and its surface was much decayed. The bones it contained, when compared with similar specimens of *Dromæus*, show an enormous disproportion in the massiveness and form as regards the extremities, with very slight difference in the cranium and total length. No wing-bones are mentioned.

JOLY, N. Sur un œuf d'*Epiornis* [lege *Apyornis*] *maximus* vu récemment à Toulouse. Compt. Rendus, lxx. pp. 422-424.

This specimen was found by the owner, M. Nau, about eleven years ago, in Madagascar, twenty leagues from the sea. It is considerably larger than either of those in the Museum at Paris.

MÜLLER, ADOLF, und KARL. Das Nisten der Vögel. Zool. Garten, 1867, pp. 96-100, 137-143, 172-178, 208-216, 250-259.

These articles contain a great variety of general remarks on nidification, but apparently no very novel facts are recorded.

NEWTON, ALFRED. On some New or Rare Birds' Eggs. Proc. Zool. Soc. 1867, pp. 161-168, pl. xv.

This paper was read in 1865 (Zool. Rec. ii. p. 91), but its publication postponed in consequence of an accident. The eggs of *Nucifraga caryocatactes*, *Didunculus strigirostris*, *Opisthocomus cristatus*, *Tryngites rufescens*, *Tringa minutilla*, *Phalaropus fulicarius*, and *Totanus flavipes* are figured, and those of *Chroicocephalus ichthyactes*, *Mareca americana*, *Fulix affinis*, *Oedemia perspicillata*, and *Mergus cucullatus* are described.

RAMSAY, E. P. Note on the Nidification of *Baza subcristata*. Tom. cit. 1867, pp. 392-394.

——. Note on the Eggs of the Australian Stilt-Plover (*Himantopus leucocephalus*). Tom. cit. p. 600.

——. Illustrations of Australian Oology. Ibis, 1867, pp. 413-421, pls. viii., ix.

Contains good accounts of the mode of breeding of *Biziura lobata*, *Pitta strepitans*, *Parra gallinacea*, *Choriotis australis*, *Lobivanellus lobatus*, and *Sarciophorus pectoralis*, with figures of their eggs, drawn in Australia under the author's superintendence.

ROWLEY, G. D. On the Egg of *Apyornis*, the Colossal Bird of Madagascar. Proc. Zool. Soc. 1867, pp. 892-895.

Seven more or less perfect specimens of the egg of *Æ. maximus* have been found, besides fragments. Some of the last indicate that they belonged to a smaller species, now called *Æ. grandidieri*. (See *Apyornithideæ*.)

SAMUELS, EDWARD A. Ornithology and Oölogy of New England, &c. Boston : 1867. 8vo, pp. 583, pls.

Of the general scope of this work we have already spoken (*suprà*, pp. 67, 68). Four of the plates are devoted to illustrations of the eggs; but the figures only give a general idea of what the originals are like, and are entirely wanting in specific character, though most are figured for the first time. The following is a list of them :—

Plate I. *Hypotriorchis columbarius*, *Tinnunculus sparverius*, *Accipiter fuscus*, *Buteo lineatus*, *B. pennsylvanicus*; Plate II. *Myiarchus crinitus*, *Parula americana*, *Siurus noveboracensis*, *Dendroica virens*, *Sitta carolinensis*, *S. canadensis*, *Zonotrichia albicollis*, *Junco hyemalis*, *Spizella monticola*, *Guiraca ludoviciana*, *Icterus spurius*, *Scolecophagus ferrugineus*; Plate III. *Tetrao canadensis*, *Agelaius vociferus*, *Æ. semipalmatus*, *Philohela minor*, *Gallinago wilsoni*, *Actitis bartramius*, *Rallus virginianus*, *Porzana carolina*; Plate IV. *Larus argentatus*, *Chroicocephalus atricilla*, *Sterna wilsoni*, *S. frenata*.

SAUNDERS, HOWARD. A Birdsnesting Trip to the North of Ireland. Zoologist, S. S. pp. 609–624.

No species appears to have been noticed that was not previously known as frequenting the district.

WESTERLUND, CARL AGARDH. Skandinavisk Oologi. Udbredning, Bo och Ægg af Sveriges och Norges foglar jemte Ornithologisk Exkursions-Fauna. Stockholm : 1867. pp. 250.

In apparent unconsciousness of M. O. des Murs's 'Oologie Ornithologique,' the author states that his is the first attempt to bring oology into system, or to treat that study scientifically. The result, according to his determination of oological characters, is that *Upupa* stands between *Mergulus* and *Alca*, and *Regulus* between *Anthus* and *Ibis*. It must not, however, be thought from this that the author is in favour of such an arrangement; on the contrary, a systematic list, based on Prof. Sundevall's classification, concludes the volume. In describing the eggs of birds, Herr Westerlund adopts four categories :— (1) Ovate (*ovata*), (2) Oval (*ovala*), (3) Pear-shaped (*päronformiga*), and (4) Spindle-shaped (*spolformigt*). (Cf. *Ibis*, 1868, pp. 113, 114.)

WIESE, —. Ueber Abänderungen in der Färbung der Vogeleier. Journ. für Orn. 1867, pp. 73–82.

This paper contains the result of many observations on the variation in the colour of birds' eggs; but, so far as we can gather from it, the author does not arrive at any very definite conclusions on this neglected subject.

Phaethornis eurynomus, its egg and nest figured. (See under *Trochilidae*.)

Piprisoma agile, its nest and egg figured. R. C. Beavan, *Ibis*, 1867, pp. 314, 315, pl. x.

Syrhaptes paradoxus, its eggs (laid in confinement) described. A. von Homeyer, J. f. O. 1867, p. 37.

Chionis minor, its egg described. E. L. Layard, *Ibis*, 1867, pp. 458, 459.

ACCIPITRES.

Prof. HUXLEY (Proc. Zool. Soc. 1867, pp. 462-465) goes into some detail with respect to the division of the *Aetomorphæ* or *Accipitres*. They appear to him to fall into four well-defined primary groups, which he names *Strigidae*, *Cathartidae*, *Gypaetidae*, and *Gypogeranidae*. The first is coextensive with the usually assigned limits of the family; the second comprises the Vultures of the New World, *Cathartes* and *Sarcorhamphus*; the third the Vultures of the Old World, with the *Falconidae* in the ordinary acceptance of the term, excepting *Gypogeranus*, which, alone, forms the fourth family. These groups are not merely based, like many of the others proposed by the author (see "GENERAL SUBJECT"), on modifications of the palatal structure, but on characters drawn from various parts of the skeleton, combined with pterylographical peculiarities. Being so, we cannot but regard them as worthy the deepest attention, since the arrangement they indicate is probably quite natural, and will probably be followed by us in future.

FALCONIDÆ.

"*Aquila riparia*, P. Würt." (Naumannia, 1857, p. 432), is *A. imperialis*, T. v. Heuglin, J. f. O. 1867, p. 290.

Aquila navioides, *A. clanga*, and *A. naviæ*, notes on. J. Vian, R. Z. 1867, pp. 129-137, 207, 208.

Aquila navioides, a permanent resident in Bulgaria. W. H. Cullen, Ibis, 1867, pp. 247, 248.

"*Aquila navioides*, P. Würt." (Naumannia, 1857, p. 432) (*nec* Cuv.), is *A. minuta*. T. v. Heuglin, J. f. O. 1867, p. 292.

Aquila imperialis in captivity. O. Herklotz, Sitzungs. z.-b. Gesellsch. Wien, 1867, pp. 59, 60.

Aquila pennata, Mr. Dresser's note on its nidification in Spain (Zool. Rec. iii. p. 72) reprinted. Zoologist, S. S. pp. 803-807.

Haliaetus leucocephalus is thought to have occurred in Ireland. J. A. H. Browne, Zool. S. S. pp. 562, 563.

Haliaetus pelagicus is figured. D. G. Elliot, B. N. Am. part vi.

Pandion haliaetus is one and the same species all over the world, though specimens from the Atlantic coasts of America are somewhat larger than those of the Pacific. J. H. Gurney, Ibis, 1867, pp. 464, 465.

"*Helotarsus leuconotus*, P. Würt." (Naumannia, 1857, p. 432), is distinct from, or at least a conspecific of, *H. ecaudatus*, being smaller, and having more slender bill and feet, the outermost row of wing-coverts, with the secondaries and tertials, pure black, and the scapulars also much shorter. T. v. Heuglin, J. f. O. 1867, pp. 291, 292. (Cf. T. v. Heugl. Sitzungs. k. k. Akad. Wien, 1856, p. 260, and J. H. Gurney, Ibis, 1868, pp. 140, 141.)

Milvago crassirostris (Zool. Rec. ii. p. 91), if distinct, should stand as *M. megalopterus* (Meyen). P. L. Sclater, P. Z. S. 1867, p. 329; differs very slightly, if at all, from *M. montanus*. P. L. Sclater and O. Salvin, P. Z. S. 1867, p. 988.

Leucopternis supercilialis, Von Pelzeln (Sitz. Ak. Wien, xlv. p. 10) is iden-

tified with *L. kuhli*, Bp. (Consp. Av. i. p. 19), and *L. kaupi*, Bp. (R. Z. 1850, p. 481). P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 589, 590.

Buteo delalandii. O. des Murs (R. Z. 1862, p. 52) (*cf.* Ibis, 1862, pp. 361-363). The young of this obscure species described. J. V. Barboza du Bocage, Journ. Scienc. Lisboa, March 1867, pp. 131, 132.

Buteo zonocercus is figured. D. G. Elliot, B. N. Am. part viii.

"*Buteo longipes*, P. Würt." (Naumannia, 1857, p. 432), is *B. ferox*. T. v. Heuglin, J. f. O. 1867, p. 292.

Baza madagascariensis (A. Smith) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 45-47, pl. 16. figs. 1, 2.

Baza subcristata, note on its nidification. E. P. Ramsay, P. Z. S. 1867, pp. 392-394.

Macherhamphus alcinus (Zool. Rec. iii. p. 73) is figured. J. H. Gurney, Trans. Zool. Soc. vi. pp. 117, 118, pl. xxix.

Circus aquipar, Cuv. (*C. swainsoni*, A. Smith), has occurred in Holland, and a very complete account of the species is given. J. P. van Wickevoort-Crommelin, Arch. Néerl. 1867, pp. 66-75.

Circus jardini is figured. S. Diggles, Orn. Austral. part xii.

Circus cyaneus and *C. cineraceus* (♂ and ♀) are figured. J. Gould, B. Gr. Br. part xii.

Circus cineraceus and *C. pallidus* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxii. figs 2-4.

Milvus migrans has occurred at Alnwick, in Northumberland. J. Hancock, Ibis, 1867, p. 253; N. H. Trans. Northumb. & Durh. i. p. 283.

"*Milvus isuroides*, P. Würt." (Naumannia, 1857, p. 432), is supposed to be *M. parasiticus* juv. T. v. Heuglin, J. f. O. 1867, p. 293.

"*Genâa venerata*, P. Würt." (Naumannia, 1857, p. 432), is *Falco lanarius græcus*, Schleg. (Mus. P.-B. Falcones, p. 15). T. v. Heuglin, J. f. O. 1867, p. 290.

Falco peregrinoides is distinct from *F. barbarus*. J. Vian, R. Z. 1867, pp. 174-176.

Falco peregrinus, *F. anatum*, and *F. nigriceps* are specifically identical, but about the Straits of Magellan occurs a really distinct race, closely allied to the Australian *F. melanogenys*. J. H. Gurney, Ibis, 1867, pp. 465, 466.

Falco sacer is figured. C. J. Sundevall, pl. lxxii. fig. 1.

Falco rufipes in captivity. O. Herklotz, Sitzungsab. z.-b. Gesellsch. Wien, 1867, pp. 65, 66.

Falco frontatus is figured. S. Diggles, Orn. Austral. part xi.

Falco concolor, Temm. [?], from Madagascar is described and figured. H. Schlegel and F. P. L. Pollen, Rech. Faun. Madag. pp. 31, 32, pl. 12, fig. 1.

"*Falco ruficapillus*, P. Würt." (Naumannia, 1857, p. 432), is *F. ruficollis*, Sw. T. v. Heuglin, J. f. O. 1867, p. 290.

Falco newtoni, *F. punctatus*, and *F. gracilis* (Zool. Rec. ii. p. 92) are now admitted to be distinct species, and figured as such. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 32-35, pl. 11, figs. 1-5.

KAUP, J. J. On the *Nisi* and *Astures* of the Indian Archipelago and of New Holland. Proc. Zool. Soc. 1867, pp. 168-179, figs.

A paper the gist of which we do not pretend entirely to understand—possibly because it is a translation. Subgenera are 1867. [VOL. IV.]

now given up by the author and raised to genera. Four of these, *Teraspiza*, *Tachyspiza*, *Erythrospiza*, and *Uraspiza* (lege *Urospiza*) among the *Nisi*, and two, *Lophospiza* and *Leucospiza*, among the *Astures*, all of which occur in the region indicated, are considered. Their characters are very minutely indicated, at such a length that their reproduction here is impossible for want of space, while it would be equally impossible to condense them. *Teraspiza* and *Erythrospiza* (nec *Erythrospiza*, Bp. 1830!) appear to be new. The former is made to contain *Falco virgatus*, Reinw., *Nisus rhodogaster*, Schl., *F. minullus*, Daud., and *F. tinus*, Lath.; the latter *F. trinotatus*, Temm., *F. hiogaster*, S. Müll., and *Astur griseogularis*, G. R. Gray (with which is united *A. henicogrammus*, G. R. Gray, *Accipiter æquatorialis* and *A. muelleri*, Wall., and *Nisus cruentus*, Schl.). The author lays great stress on characters drawn from the bill and form of the wing, illustrating his remarks by woodcuts, and says that the length of the toes has no generic value in these groups. *Nisus sulaensis* (Zool. Rec. iii. p. 72) is referred with five other species to *Urospiza*.

Accipiter chilensis (Zool. Rec. ii. p. 93); a Spanish version of its description. L. Landbeck, Anal. Univers. Chili, 1864, pp. 345-348.

Accipiter badius [sc. *brevipēs*, Zool. Rec. ii. p. 93] should be admitted to the European fauna.—Alléon, R. Z. 1867, pp. 3-5.

Accipiter ventralis (Zool. Rec. iii. p. 73), *A. chionogaster*, *A. erythrocnemis*, and *A. castanilius* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. 13, 14, 17, and 18.

Nisus polleni is described as a new species from Madagascar. A. Grandidier, R. Z. 1867, p. 85. [It is omitted, however, from the subsequent lists of the same author, *tom. cit.* pp. 256, 320, 321.]

Nisus brutus, *N. moreli*, *N. lantzi*, and *N. francesi* [lege *franciscæ*] (Zool. Rec. ii. pp. 92, 93, iii. pp. 73, 74) are fully described and figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 35-38, pl. 12. figs. 2, 3, pls. 13, and 14. figs. 1-3.

"*Astur leucomelas*, P. Würt." (Naumannia, 1857, p. 432), is supposed to be *Nisus verreauxi*, Schl. (Mus. P.-B. *Astures*, p. 37), and not *A. melanoleucus*, A. Smith (S. Afr. Q. Journ. i. p. 229).

Astur novæ-hollandiæ is figured. S. Diggles, Orn. Austral. part xv.

Microastur macrorhynchus (Zool. Rec. ii. p. 93) is identical with *Astur mirandollii*, Schl. (Mus. P.-B. *Astures*, p. 27). P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 759.

STRIGIDÆ.

Strix flammea, observations on its food, similar to those formerly made on other species (cf. Zool. Rec. ii. p. 93, iii. p. 74). B. Altum, Zoolog. Garten, 1867, pp. 262-266;—Jäckel, *tom. cit.* pp. 463-471.

Strix indica is separated as a distinct species. It is *S. javanica*, Jerd. (B. Ind. i. p. 117), and *S. flammea*, Gould (P. Z. S. 1859, p. 151), from Siam. E. Blyth, Ibis, 1866, pp. 250, 251.

Strix castanops, head figured. S. Diggles, Orn. Austral. part xiii.

"*Ninox affinis*, Tytler," is described as a new species from the Andamans, closely allied to *N. scutellatus* (Raffles), but considerably smaller, much more rufous above, and darker beneath. R. C. Beavan, Ibis, 1867, p. 316.

Syrnium cinereum is specifically identical in Europe and North America. J. H. Gurney, Ibis, 1867, p. 465.

Athene whitelii is separated as the Japanese form of *A. cuculoides*, which it entirely resembles except in the comparatively few markings upon the flight-feathers of the wings. E. Blyth, Ibis, 1867, pp. 312, 313.

Athene noctua, *Nyctale tengmalmi*, and *Surnia funerea* are figured. J. Gould, B. Gr. Br. part xi.

"*Bubo selenotis*, P. Würt." (Naumannia, 1857, p. 432), is *B. omerascens*, Guér.-Ménev. (R. Z. 1843, p. 321), which is identical with *Strix maculosa*, Vieill. T. v. Heuglin, J. f. O. 1867, p. 293.

"*Scops faszoglenis*, P. Würt." (Naumannia, 1857, p. 432), is *S. senegalensis*, Swains. T. v. Heuglin, J. f. O. 1867, p. 293.

Scops madagascariensis is described as a new species. A. Grandidier, R. Z. 1867, pp. 85, 86. Identified with *S. menadensis*. *Id. tom. cit.* pp. 255, 321.

Scops kennicotti is described as an apparently new species, from Sitka, in size between *S. asio* and *Otus wilsonianus* with a curious concealed tuft of white feathers just above the ears. D. G. Elliot, Proc. Acad. N. S. Philad. 1867, pp. 99, 100.

Scops zorca and *Athene noctua* are figured. E. Bettoni, Ucc. Lomb. tavv. 17, 20.

PSITTACI.

FINSCH, OTTO. Die Papageien, monographisch bearbeitet. Erster Band. Mit einer Karte und einer lithographirten Tafel. Leiden: 1867. Roy. 8vo, pp. 561.

This, for its size the most elaborate monograph with which we are acquainted in ornithological literature, is the first volume of the work of which we last year (Zool. Rec. iii. p. 75) noticed a separately printed portion relating to the geographical distribution of the group. The second volume has not yet appeared; but the first contains the whole of the first and a portion of the second of the two parts into which the author divides his subject, these two parts comprising (I.) the General and (II.) the Special natural history of the Parrots. After a brief introduction and explanation of the terms used, Herr Finsch gives (1) an historical and literary survey, containing notices of the Parrots known in ancient (pp. 4-6) and mediæval (pp. 6-8) times, the literature relating to them from Aldrovandi to the present day (pp. 8-26), the plan of the work now before us (pp. 27-34), and a polyglot vocabulary of the different names by which the birds are known in various languages (p. 34). To this succeeds (2) an account of their habits (*Acusseres Leben*), with particulars of their sociability (p. 38), migrations (pp. 39, 40), places of abode (pp. 40-43), daily functions (pp. 43, 44), foresight (pp. 44, 45), voice (pp. 46-49), and food (pp. 49-52), the mode of tending them (pp. 52-57), their duration of life (pp. 57-59), sicknesses (p. 59), mode of breeding (pp. 59-70), and mischievousness (pp. 70-72),

the mode of taking them (pp. 73-74) and their utility (pp. 75-80). Then follows (3) the treatise on their geographical distribution both horizontally and vertically (pp. 81-114), which (as just said) we noticed last year, after which the author treats (4) of their talent for wit (*Geistesanlagen*) (pp. 115-129), and (5) of their form and external structure, in which are considered at greater or less length the bill (pp. 130-140) and (when it exists) the bare skin (p. 140), the wings (pp. 140-145), the tail (pp. 145-147), and, finally, the feet (pp. 147, 148). To this succeeds (6) an account of the feathers, comprising the pterylography (pp. 149, 150), forms of the feathers (pp. 151-153), their colouring (pp. 153-158), moulting and changes (pp. 159-166), and variation (pp. 166-170). The next division of the work (7) is devoted to anatomy, including splanchnology (pp. 171-182) and osteology (pp. 182-211), with a plate representing the skeleton of *Psittacus erithacus* and the skulls of *Ptilolophus sulphureus* and *Euphema pulchella*; and an essay on their systematic arrangement (8), followed by a list of genera and species, concludes the first part of the work.

The second part of the work, treating of the special natural history of the group, contains descriptions of the genera and species of *Stringops*, *Callisittacus*, *Ptilolophus*, *Nasiterna*, *Calyptorrhynchus*, *Microglossus*, *Sittace*, *Henicognathus*, and *Conurus*, with which this volume ends.

The number of species of Parrots described has been more than doubled since Wagler in 1832 published his 'Monographie Psittacorum'*; and as the number of works that have appeared in the interim have been very numerous and at the same time scattered, it seemed advisable to the author to collect in the present monograph all the information bearing on the subject that could be obtained. He has had the advantage of working chiefly on the rich material afforded by the Leyden Museum, besides that offered by the still richer (in species) British Museum. He has also enjoyed remarkable facilities in consulting types in various other collections both private and public; so that of the 350 species recognized and enumerated by him, there are only 20 which he has not himself examined, and of these 8 are possibly not good ones, viz. *Sittace leari*, *Dasyptilus fulgidus*, *Chrysotis erythrura*, *C. bouqueti*, *Psittacula swindereni*, *Domicella stavorinii*, *D. cardinalis*, and *Nestor norfolciensis*. He intends to add an appendix, including 41 still doubtful species. Only one species (*Bolborrhynchus luchsii*) will be described as entirely new; but virtually three or four others may be so considered from their having been confounded with their allies. Very numerous and careful details are constantly given with respect to the colours of the soft parts (chiefly derived from living birds in the Zoological Gardens of London and Amsterdam), and measurements. In

* Abhandl. mathem.-physik. Classe k. bayer. Acad. Wissensch. Band i.

the matter of nomenclature Herr Finsch is a purist, and more names are in consequence changed than seems to us quite necessary: for example, he follows Van der Hoeven in writing *Stringops* instead of *Strigops*, and refuses to acknowledge any but classically formed generic names; but on the whole this part of the subject, like all the rest, is treated with sound judgment.

The Parrots are regarded by the author as forming one family, *Psittacideæ*, of the *Zygodactyl* (*Paarzehen*) order, and are divided by him into five subfamilies—(1) *Stringopinae*, (2) *Pictolophinae*, (3) *Sittacinae*, (4) *Psittacinae*, and (5) *Trichoglossinae*, the first containing the genera *Stringops*, the second *Callipsittacus*, *Pictolophus*, *Nasiterna*, *Calyptorrhynchus*, and *Microglossus*, the third *Sittace*, *Henicognathus*, *Conurus*, *Palæornis*, *Brotogerys*, *Bolborrhynchus*, *Melopsittacus*, *Pezoporus*, *Euphema*, and *Platycercus*, the fourth *Psittacus*, *Dasyptilus*, *Eclectus*, *Pionias*, *Chrysotis*, *Psittacula*, and *Coryllis* (Finsch), the fifth *Domicella*, *Trichoglossus*, and *Nestor*—26 genera on the whole, and an assignment very different from that of Mr. Wallace (*cf.* Zool. Rec. i. pp. 53–55) hitherto followed in this ‘Record.’

In the special part Herr Finsch furnishes a very complete synonymy and diagnosis of each species, accompanied by a full description of many specimens from localities as various as possible, and very copious tables of dimensions.

Such is a very imperfect abstract of this valuable work, the execution of which we cannot sufficiently praise. (*Cf.* Zoolog. Garten, 1867, pp. 318–320.)

MILNE-EDWARDS, ALPHONSE. Mémoire sur un Psittacien fossile de l'île Rodriguez. Ann. Sc. Nat. 5^e sér. Zool. viii. pp. 144–156, pls. 7, 8; Comptes Rendus, lxx. (Dec. 30, 1867) pp. 1121–1125.

Among the bones of *Pezophaps solitarius* obtained from Rodriguez by Mr. Edward Newton was the distal portion of the maxilla of a Parrot, which the author, after careful comparisons similar to those he before instituted in the case of *Psittacus mauritianus* (Zool. Rec. iii. pp. 75, 76), refers to an undescribed, and doubtless extinct, species, having relation to the genus *Eclectus*; but he prefers calling it in general terms *Psittacus rodericanus*, leaving its precise determination until further remains shall have been discovered. The plates contain figures of the maxillæ of the other forms of *Psittaci* in illustration of his researches.

SCHLEGEL, F. Uebersicht der Papageien unserer zoologischen Gärten. Zoolog. Garten, 1867, pp. 32–34, 72–75. Nachtrag, tom. cit. pp. 229–231.

A nominal list, with a few synonyms, of 130 species exhibited in various Zoological Gardens in Europe. *Coracopsis mascarina* seems to be the most remarkable of them, but in which garden it is to be found is not mentioned. The supplement includes the names of 44 more.

PLYCTOLOPHIDÆ.

Cacatua ducorpsi, *C. ophthalmica* (Zool. Rec. i. p. 68), and *C. trilon* are specifically distinct, notwithstanding Prof. Schlegel's assertion (Zool. Rec. iii. p. 76) to the contrary. P. L. Sclater, P. Z. S. 1867, p. 184.

Cacatua leadbeateri (head) and *C. eos* are figured. S. Diggles, Orn. Austral. parts xi. and xiv.

Plectolophus buffoni, from Samao, near Timor, differs from *P. sulfureus* from Celebes, with which it has hitherto been confounded, by being smaller and with a weaker bill, and almost wanting the yellow cheek-patch. O. Finsch, Papageien, i. pp. 300-303.

PLATYCERCIDÆ.

Geopsittacus occidentalis, Gould (P. Z. S. 1861, p. 100), in confinement: it is of nocturnal habit. P. L. Sclater, P. Z. S. 1867, p. 891. Figured, J. Gould, B. Austral. Suppl. part iv.

PSITTACIDÆ.

Palæornis wardi is a new species from the Seychelles, like *P. alexandri*, but with a stouter bill, the humeral bands purplish-red and wanting the red nuchal band. E. Newton, P. Z. S. 1867, p. 346; Ibis, 1867, p. 341.

"*Palæornis affinis*, Tytler," is described as a new species, from the Andamans, generally like *P. erythrogenys*, but having a black bill. R. C. Beavan, Ibis, 1867, p. 320. [It is *P. erythrogenys* ♀ juv. E. Blyth, Ibis, 1868, p. 132.]

Loriculus edwardsi is the name given to the species described by Gmelin as *Psittacus indicus*, though coming from Ceylon. E. Blyth, Ibis, 1867, p. 295. The new name disapproved of. Id. Walden, tom. cit. pp. 467, 468.

Caracopsis barklyi is a new species from Praslin in the Seychelles resembling *C. comorensis* in colour, but much smaller. E. Newton, P. Z. S. 1867, pp. 346, 347, pl. xxii. (*ad vivum*); Ibis, 1867, p. 341. In confinement. P. L. Sclater, P. Z. S. 1867, p. 473.

Cyclopsitta coxeni is a new species from Queensland, nearly allied to *C. diopthalma* of Mysol, but wanting the scarlet on the crown and having less of it on the cheeks. J. Gould, P. Z. S. 1867, pp. 182, 183. Figured. Id. B. Austral. Suppl. part iv.

Polyteles alexandrae (Zool. Rec. i. p. 69) is figured. Id. loc. cit.

Euphema chrysostoma and *E. splendida* (♂ & ♀) are figured. S. Diggles, Orn. Austral. part xiii.

Ara ambigua (Bechst.) from Mexico and *A. militaris* (L.) from New Granada are diagnosed. The first is larger, with a larger bill, the mandible especially, the crown variegated with yellow and green; the second is smaller, with a moderately sized bill and the crown entirely green. P. L. Sclater, P. Z. S. 1867, p. 183.

Ara rubrogenis, Lafresnaye (R. Z. 1847, p. 65), is proposed to be called *Sittace lafresnayii*. O. Finsch, Papageien, i. p. 394.

Comurus carolinensis, note on its variation in colour. W. Niemeier, Zoolog. Garten, 1867, p. 268.

Comurus æruginosus, *C. chrysogenys*, *C. xantholemus*, *C. ocellaris*, and *C. chrysophrys* are united with *C. pertinax*. O. Finsch, Papag. i. pp. 506-517. The opposite opinion entertained. P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 587, 588.

TRICHOGLOSSIDÆ.

Lorius chlorocercus, Gould (P. Z. S. 1858, p. 187), from the Salomon Islands, is figured. P. L. Sclater, P. Z. S. 1867, pp. 183, 184, pl. xvi.

Trichoglossus chlorolepidotus and *T. concinnus* are figured. S. Diggles, Orn. Austral. part xii.

PICARIÆ.

PICIDÆ.

Picus medius has occurred in Finland. A. von Nordmann, Cefvers. Finska Vet.-Soc. Förh. viii. pp. 58, 59.

Picus peronii is a new species from Northern China, somewhat resembling *P. cattipharus*, but differing in its whitish rump, a black band extending down its belly, and a red patch on its breast. J. P. Verreaux, R. Z. 1867, pp. 171, 271, 272, pl. xvi.

Picus major is figured. E. Bettoni, Ucc. Lomb. tav. 16.

Colaptes chrysoides is figured. D. G. Elliot, B. N. Am. part vi.

Coleus citreopygius is an undescribed species from Yurimaguas in Eastern Peru. It has hitherto been confounded with *C. jumana*, but is more nearly allied to *C. citrinus*, having the underside of the primaries unspotted. P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 758, 759 (cf. tom. cit. p. 586).

Dendrobates nigrogularis is described as a new species from Capangombe. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1867, p. 336.

CORACIIDÆ.

Fifteen species belonging to this family, and referred to the genera *Coracias*, *Brachypteracias*, and *Eurystomus*, are represented in the Leyden Museum by 105 mounted specimens, the series of *E. orientalis* consisting of 78 examples. H. Schlegel, Mus. P.-B. *Coraces*, pp. 132-143.

MEROPIDÆ.

Merops superciliosus, *M. ægyptius*, and *M. savignii* are only different stages of the same species. O. Finsch, J. f. O. 1867, pp. 239-245.

Merops apiaster is figured. J. Gould, B. Gr. Br. part xi.

ALCEDINIDÆ.

KUTTER, — Ueber das Brutgeschäft von *Aledo ispida*, L. Journ. für Orn. 1867, pp. 38-45.

Many original observations on this subject.

Halcyon pealii is a new species from Huahaina very like *H. sacra* (with which it has been confounded by Lesson and Prof. Schlegel), but with a blue cap and some other differences. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. pp. 38-40.

H. cassini is a new species from the Feejee Islands, partly confounded by Mr. Cassin, under the name of *Todirhamphus vitiensis*, a synonym of *H. sacra*, with that bird, from which it differs in having only a narrow white line

extending from the nostrils under the eyes. *Idem*, tom. cit. pp. 40, 41, and 276.

Dacelo leachi and *Tanyssiptera sylvia* (ad. & juv.) are figured. S. Digglea, Orn. Austral. parts xii. and xv.

CAPITONIDÆ.

SCLATER, P. L. Barbets and their Distribution. Intell. Observ. Nov. 1867, pp. 241-246.

A popularly written summary of the chief peculiarities of the family, illustrated by a plate representing *Megalema asiatica*. From the facts adduced relating to the distribution of the different members of the family, the author urges the probability of the derivative theory of species.

"*Bucco aurifrons*, P. Würt." (Naumannia, 1837, p. 433), is *Barbatula chrysocoma*. T. v. Heuglin, J. f. O. 1867, p. 300.

RHAMPHASTIDÆ.

CASSIN, JOHN. A study of the *Ramphastidæ* [lege *Rhamphastidæ*]. Proc. Acad. Nat. Sc. Philadelphia, 1867, pp. 100-124.

Another of the author's valuable monographs. Of the numerous so-called genera into which the family has been split, he is content with five only, using the names of the rest, with half a dozen new ones, to indicate minor groups. These genera and groups are as follows:—(i) *Ramphastos* [lege *Rhamphastus*], containing five divisions: (1) *Rhamphastus* with two species, (2) *Burhynchus* and (3) *Tucanus* with six each, (4) *Ramphodryas* [*Rhamphodryas*] with two species and three varieties of *R. ariel*, and (5) *Tucaius* with one species—these last four names being apparently used for the first time; (ii) *Pteroglossus*, including (1) *Pteroglossus* proper with eleven species and three varieties of *P. castanotis*, (2) *Grammarhynchus* [lege *Grammatorhynchus*] with three species, (3) *Pyrosterna* with five, and (4) *Beauharnaisius* and (5) *Baillonius* (a new name) each with one species—*P. aldrovandi* (Shaw) being a doubtful species; (iii) *Selenidera*, comprising (1) *Selenidera* proper with five species, and (2) *Piperivorus* and (3) *Ramphastoides* [lege *Rhamphastoides*] (a new name) with one each; (iv) *Aulacorhamphus* and (v) *Andigena* are each composed of two divisions, the former of (1) *Aulacorhamphus* proper with five and (2) *Ramphoxanthus* with six species, and the latter of (1) *Andigena* proper with three species and (2) *Rhamphomelas* with two. Besides these Mr. Cassin enumerates some other described species of *Rhamphastus*, which he cannot determine. No species are described as new.

BUCEROTIDÆ.

"*Toccus nasutus*, var. *infuscatus*, P. Würt." (Naumannia, 1857, p. 433), is *T. pœnilorhynchus*. T. v. Heuglin, J. f. O. 1867, p. 300.

UPUPIDÆ.

"*Rhinopomastes cyanoleucus*, P. Würt." (Naumannia, 1857, p. 433), partly rests on *Irrisor senegalensis*, juv., and partly on *R. aterrimus*. T. v. Heuglin, J. f. O. 1867, p. 301.

Upupa epops, its habits during incubation. D. Scott, Ibis, 1867, pp. 135, 136.

Falculia palliata is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 33, figs. 1, 2.

CUCULIDÆ.

Cuculus canorus ♀ is supposed to have removed the eggs from the nest of *Anthus aquaticus*, in which her own had been hatched. E. Baldamus, Zeitschr. gesammt. Naturwiss. 1867, pp. 100, 101. Remarks on its oviposition. C. Jex, Zoolog. Garten, 1867, pp. 76-78 and 355, 356; A. Müller, tom. cit. pp. 156-159, 374-390, 409-415, 449-457; E. Baldamus, tom. cit. pp. 193-197; W. Jesse, Zoologist, S. S. p. 914. Herr Müller argues strongly against the theory of Dr. Baldamus (cf. Zool. Record, ii. p. 99). The same theory considered: A. C. Smith, Wiltshire Magazine (cf. Ibis, 1867, pp. 374, 375, 469, 470).

Cuculus infuscatus (Zool. Rec. iii. p. 80) is figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. Taf. v. fig. 1.

Cuculus (Cacomantis) castaneiventris is a new species from Cape York, resembling *C. flabelliformis* in form, but smaller and with shorter wings. It is closely allied to a Philippine species, probably *C. sepulchralis*, Bp., and more distantly to *C. bronzinga*, G. R. Gray. J. Gould, Ann. & Mag. N. H. 3rd ser. xx. p. 260. Figured: Id. B. Austral. Suppl. part iv.

Hierococcyx nisioides is characterized as a new species from Nepal, like *H. sparveriioides*, but conspicuously smaller. E. Blyth, Ibis, 1866, p. 362.

Chrysococcyx cupreus has no caeca. C. Barron, Ibis, 1867, p. 145, 146.

Coa coquereli, *C. cursor*, *C. verreauxi*, *C. pyropyga*, together with *Centropus sakalava* and *C. leucopyrga*, are described as new species from Madagascar. The first three seem to be good; but the fourth is subsequently identified with *C. cristata*, and the fifth and sixth with *C. lafreayanus* [Zool. Rec. iii. p. 80]. A. Grandidier, R. Z. 1867, pp. 86, 87, 255, 256, 391, 392, 417.

"*Centropus andamanensis*, Tytler," is described as a new species, from the Andamans, smaller than *C. rufipennis* and wanting the black markings of that bird. R. C. Beavan, Ibis, 1867, p. 321.

Dromococcyx rufipennis is described as a new species from Guatemala, much smaller than *D. phasianellus*, and with weaker feet. The coloration is also different. G. N. Lawrence, Proc. Ac. Philad. 1867, p. 233.

CAPRIMULGIDÆ.

SCLATER, P. L. Bemerkungen über die amerikanischen Caprimulgiden. Journ. für Orn. 1867, p. 252-278.

A translation of the first of the two papers by the same author noticed last year (Zool. Rec. iii. p. 81).

Caprimulgus brachyurus is described as a new species from the Aru Islands, recognizable especially by its dark colour and short tail. H. von Rosenberg, Natuurk. Tijdschr. Nederl. Ind. xxix. (1866) p. 143.

Caprimulgus wehoitschi is described as a new species from Angola, allied to *C. rufigena*, A. Smith, and *C. fossi*, Verr., but more rufescent beneath, and considered to be distinct from either. J. V. Barboza du Bocage, Journ. Sc. Lisboa, 1867, p. 133.

Caprimulgus europæus is figured. E. Bettoni, Ucc. Lomb. tav. 15.

"*Scotornis macrocercus* and *S. longissimus*, P. Würt." (Naumannia, 1857, p. 433), are identical with *S. climacurus*. T. v. Heuglin, J. f. O. 1867, p. 297.

Semiophorus vezillarius (Zool. Rec. iii. p. 82) is perfectly distinct from *Caprimulgus (Macridopteryx) longipennis*. G. Hartlaub, Arch. für Naturg. xxxiii. Jahrg., 2, p. 10; P. Z. S. 1867, pp. 821, 822.

Nyctibius bracteatus is figured. P. L. Scclater and O. Salvin, Ex. Orn. pl. 20.

CYPSELIDÆ.

SCCLATER, P. L. Bemerkungen über die Genera und Species der Cypseliden. Journ. für Orn. 1867, pp. 112-141.

A translation of the paper formerly noticed by us (Zool. Rec. ii. pp. 90, 100).

Cypselus acuticauda is a new species, supposed to be from Nepaul, differing chiefly from *C. leuconyx* in the absence of the white rump-band. E. Blyth, Ibis, 1865, p. 45.

Cypselus dubius, Antinori (Zool. Rec. i. pp. 72, 73), is probably only the young of *C. murarius* (sc. *apus*). T. von Heuglin, J. f. O. 1867, p. 201.

Cypselus gutturalis, Vieill., is distinct from *C. melba*, and "*C. barbatus*, Temm.," Scclater, P. Z. S. 1865, p. 599, from *C. apus*, of which they are the South-African representatives. H. B. Tristram, P. Z. S. 1867, p. 887 (cf. J. H. Gurney, Ibis, 1868, p. 152).

Nephocetes niger is figured. D. G. Elliot, B. N. Am. part v.

Chaturra grandidieri is a new species from the east coast of Madagascar, in appearance resembling *Phedina borbonica*. J. P. Verreaux, Bull. N. Arch. Mus. iii. pp. 3-5, pl. i.; H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 65, 66.

Chaturra brachycerca is a new species from Xeberos in Eastern Peru, remarkable for its short tail. P. L. Scclater & O. Salvin, P. Z. S. 1867, p. 758, pl. xxxiv.

Collocalia francica with nest is figured. C. Coquerel, Album de la Réunion, 1865, pp. 21-24, fig. 1.

"*Collocalia affinis*, Tytler," is described as a new species from the Andamans. R. C. Beavan, Ibis, 1867, p. 318. [Apparently the same as *C. linchi*. E. Blyth, op. cit. 1868, pp. 131, 132.]

TROCHILIDÆ.

Glaucis ceneus is described as a new species from Costa Rica, differing from *G. hirsuta* in the bronze colour above and also in being smaller. Like *G. affinis* it has a well-marked tail-band, but it is of a deeper black. G. N. Lawrence, Proc. Acad. Philad. 1867, p. 232.

Phaethornis eurynomus, its nest and egg figured. C. F. Dubois, Arch. Cosmol. 1867, pl. ix. p. 163. [N.B. The roseate colouring of the egg is said to

be due to the reddish lichen (*Spiloma roseum*) of which the nest is partly composed.]

Doricha bryantæ is a new species from Costa Rica, allied to *D. evelynæ* and *D. ekize*, with a longer bill and narrower tail than the former, and a less brilliant throat than the latter, besides other differences. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 483, 484.

Aglæactis olivaceocauda is described as a new species from Peru. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 470-472. [A comparison of the types proves it to be identical with *A. caumatomota*, Gould (P. Z. S. 1868, p. 12). O. Salvin, Ibis, 1868, p. 115.]

Helimaster spectabilis is described as a new species from Costa Rica. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 472, 473. [It is the female of a species of *Eugenes* and probably of *E. fulgens* (Swains.). O. Salvin, Ibis, 1868, pp. 115, 251.]

Oreopyra venusta and *O. cinereicauda* are described as new species from Costa Rica. The last is allied to *O. leucaspis*, but having a grey instead of a steel-blue tail. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 484, 485. [*O. venusta* is identical with *O. calolema*, as a comparison of the types prove. O. Salvin, Ibis, 1868, p. 115.]

Thaumatias lucæ is described as a new species from Honduras, much like *T. linnaei*, except as to the tail, the under surface of which closely resembles *T. chionopectus*. G. N. Lawrence, Proc. Ac. Philad. 1867, p. 233.

Eupherusa nigriventris is described as a new species from Costa Rica, with a combination of colours of unusual character, but allied probably to *E. eximia*. Id. tom. cit. pp. 232, 233.

PASSERES.

PITTIDÆ.

Pitta mackloti [?] has occurred at Cape York, North Australia; and *P. strepitans* [?] from the same locality differs from more southern specimens in its smaller size, markings, and shape of the bill and feet. G. Krefft, P. Z. S. 1867, p. 319.

Pitta mackloti [?] (ex Australia) is figured. S. Diggles, Orn. Austral. part xiv. (Cf. Ibis, 1868, p. 348.)

Philepitta jala and *P. schlegelii* (Zool. Rec. iii. p. 86) are figured. H. Schlegel and F. P. L. Pollen, Rech. Faun. Madag. pp. 87-89, pls. 31, figs. 1-3, and 32, figs. 1-3.

FORMICARIIDÆ.

"*Thamnophilus murinus*, Natterer," is an undescribed species from Cayenne, Northern Brazil, and Eastern Peru, allied to *T. cærulescens* and *T. amazonicus*. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 756.

Thamnophilus hyperythrus, Gould (Ann. & Mag. N. H. 2nd ser. xv. 1855, p. 346) is *Myrmelastes plumbeus* ♀, Sclater (P. Z. S. 1858, p. 274). Idem, tom. cit. p. 981.

Thamnophilus tenuifasciatus and *T. nigrescens* are two new species belonging to the same group as *T. dolatus*. The first is from the Rio Napo, and has the transverse lines narrow and more clearly defined than any of the others; the second is from Venezuela, and differs strikingly in its much blacker appearance, without the greyish character prevailing in the lower

plumage of its allies. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 468-470.

Myrmotherula cinereiventris is an undescribed species from Cayenne, Surinam, Ecuador, and Eastern Peru, allied to *M. axillaris*, but entirely cinereous beneath. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 756.

Pernostola fortis is a new species from Eastern Peru, in form and appearance like *P. funebris*, but larger, and with the wings unspotted externally. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 980, pl. xlv.

Phlogopsis macleannani is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. 9.

MENURIDÆ.

Menura superba in confinement. P. L. Sclater, P. Z. S. 1867, p. 391; F. C. Noll, Zoolog. Garten, 1867, pp. 266, 267, fig. Its habits in confinement; considered to be allied to the *Paradisæidæ*. A. D. Bartlett, P. Z. S. 1867, pp. 688, 689.

PTEROPTOCHIDÆ.

Hylactes castaneus is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. 29.

DENDROCOLAPTIDÆ.

"*Certhilauda nigrofasciata*," Philippi and Landbeck (Zool. Rec. ii. p. 103), is only *Geositta cunicularia*. P. L. Sclater, P. Z. S. 1867, p. 324.

Synallaxis crassirostris (Zool. Rec. iii. p. 87) is identical with *S. dorbignii*, Reich. (Handb. Sp. Orn. p. 163), which has been wrongly referred by Lafresnaye and D'Orbigny (Mag. Zool. 1836, p. 24) to *S. humicola*, Kittl. (Mém. Ac. Pétersb. 1830, tab. 6). P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 986.

Philydor fuscipennis is a new species from Veragua, allied to *P. pyrrhodes*, Cab., but the rump and tail more rufescent and darker, the back more of a cinnamon colour, and the body beneath browner. O. Salvin, P. Z. S. 1866, p. 72, 1867, p. 143.

Philydor virgatus is a new species from Costa Rica, making the third of this genus now observed north of the Isthmus of Panama. G. N. Lawrence, Ann. Lyc. N. York, 1867, p. 468; O. Salvin, Ibis, 1868, p. 114.

Dendrocolaptes radiolatus is a new species from Yurimaguas in Eastern Peru, allied to *D. cayennensis* and *D. sancti-thomæ*; but this last is smaller, has the back rufous, unbarred, the radiations are much closer, and it has a smaller and nearly black bill. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 755.

"*Denulornis mentalis*, Baird," is a new species from Mazatlan, having a very close resemblance to *D. eburneirostris*, but with larger feet, a paler coloration, and dusky margins to the chin-feathers. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 481, 482.

MELIPHAGIDÆ.

"*Zosteropsylvia icterovirens*, P. Würt." (Naumannia, 1857, p. 433), is described. It is a true *Zosterops*, and a distinct species. A list of the other four known species of the genus from north-eastern Africa is added. T. v. Heuglin, J. f. O. 1867, p. 295.

Zosterops modesta and *Z. semiflava* are two new species, the first from Mahé in the Seychelles, dusky-grey, with a white ring round the eye, and black lores; the second from Marianne in the same group, very like *Z. polio-*

gastra, Heugl. (Ibis, 1861, p. 357), but with the belly and abdomen entirely yellow and bay flanks. E. Newton, P. Z. S. 1867, pp. 345, 346; Ibis, 1867, pp. 345, 346, and 354.

Zosterops flaviceps, Peale, from the Feejees (♂, ♀, and nest) is figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. taf. vi.

Zosterops, the distribution of the species in the Mascarene Islands stated. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 71-76. (Correction of errors in the statement: Ibis, 1868, p. 225.)

Ptilotis procerior is a new species from the Feejee Islands, in general colour resembling *P. carunculata*, but easily to be distinguished by the situation of the bare skin on the cheek, and especially in the want of the lappet extending from the gape. The heads of both species are figured. O. Finsch and G. Hartlaub, Beitr. Faun. Centralpolyn. pp. 62-64, taf. v. figg. 2, 3.

Ptilotis notata is a new species from Cape York, allied to *P. chrysotis* and *P. gracilis*, but larger than the latter and with a longer and stouter bill than the former. It is also allied to *P. assimilis* of the Aru Islands. J. Gould, Ann. & Mag. N. H. 3rd ser. xx. pp. 269, 270.

Ptilotis leadbeteri is described as a new species from Victoria, allied to *P. auricomis*, but easily distinguished by its greater size, subcrested head, blackish upper colouring, shorter and thicker bill, and the larger and more deeply coloured ear-plumes. F. McCoy, Ann. & Mag. N. H. 3rd ser. xx. p. 442.

Ptilotis flavigula, *P. filigera*, and *P. chrysotis* are figured. S. Diggles, Orn. Austral. part xiv.

Ptilotis cassidix (Zool. Rec. iii. p. 88) is figured. J. Gould, B. Austral. Suppl. part iv.

Myzomela jugularis, Peale, from the Feejees, and *M. nigriventris*, Peale, from Upolu (ad. & juv.) are figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. taf. vii. figg. 1-4.

Mimus carunculatus (Zool. Rec. iii. p. 57) is referred to *Anthochaera* and called *A. bulleri*. O. Finsch, J. f. O. 1867, pp. 342, 343.

Tropidorhynchus corniculatus and *T. argenteiceps* are figured. S. Diggles, Orn. Austral. part xi.

Anthornis ruficeps is a new species from New Zealand. A. v. Pelzeln, Verhandl. k. k. zool.-bot. Gesellsch. 1867, p. 316; O. Finsch, J. f. O. 1867, p. 341.

Meliphreptus validirostris (head), *M. gularis*, *M. lunulatus* (head), *M. brevisrostris* (head), *M. albogularis*, and *M. melanocephalus* are figured. S. Diggles, Orn. Austral. part xii.

Myzantha garrula, *M. flavigula*, and *M. melanophrys* are figured. S. Diggles, Orn. Austral. part xv.

NECTARINIIDÆ.

Nectarinia natalensis, Antinori (Cat. Ucc. Afr. centr. p. 33) (*nec* Jardine), "N. acik, Ant.," Hartmann (J. f. O. 1866, p. 205), is *N. senegalensis*, Von Heuglin (J. f. O. 1864, p. 262), and only differs from *N. senegalensis* (L.) in the darker colour of its upper parts. T. von Heuglin, J. f. O. 1867, p. 202.

Nectarinia gonzenbachi (Zool. Rec. i. p. 75) is "*N. erythrocerca*, Heugl." Hartl. (Orn. West Afr. p. 270). *Idem*, loc. cit.

"*Cereba gutturalis* (L.)," Bp. (Consp. Av. i. p. 400), is a *Nectarinia*, and

identical with *N. natalensis*, Jard. (*nec* Antin.), and *Cinnyris discolor*, Bianc. It comes from Zanzibar. G. Hartlaub, P. Z. S. 1867, pp. 824, 825.

Nectarinia, sp. P., from Capangombe, is described but not named. It resembles *N. hypodilus*, Jard. & Fraas. (Contr. Orn. 1851, p. 153), but is easily distinguished by its colour below, which is not yellow but white. J. V. Barbosa du Bocage, Jorn. Scienc. Lisboa, 1867, pp. 332, 333.

Nectarinia dabrii is a new species from Northern China, belonging to the long-tailed group which contains *N. nipalensis*, but differing from all others in the whitish tips to the outer rectrices. J. P. Verreaux, R. Z. pp. 170, 173, 174, pl. xv.

Nectarinia coquereli is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. p. 71, pl. 18. fig. 1.

Nectarinia osea and *N. insignis* (Zool. Rec. ii. p. 104), *N. zeylonica*, *N. gouldiae*, and *N. saturata* are figured. J. Gould, B. As. part xix.

Piprisoma agile, with young, nest, and eggs, is figured. R. C. Beavan, Ibis, 1867, pp. 430, 431, pl. x.

CEREBIDÆ.

Cereba gutturalis (L.) is a *Nectarinia* (q. v.). G. Hartlaub, P. Z. S. 1867, pp. 824, 825.

COTINGIDÆ.

Heteropelma wallacii is a new species from Para on the Lower Amazon, allied to *H. amazonum* from the Upper waters, but more greenish above and not tinged with rufous, the throat and abdomen being paler and more ash-coloured. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 579.

Hadrostomus albiventris is described as a new species from Western Mexico, differing from the allied species in its much lighter plumage, the rose-colour on the neck in front being lighter and more restricted than in *H. affinis*. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 475, 476. [One of the many forms of *H. aglaia*, and perhaps hardly to be considered distinct. O. Salvin, Ibis, 1868, p. 115.]

Rupicola sanguinolenta is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. 15.

Ampelioides is the name given to a new genus, of which the type is described and figured as a new species, *A. flavitorques*, from the Rio Napo. J. P. Verreaux, Bull. N. Arch. Mus. iii. pp. 5, 6, pl. 2. fig. 1. [Identified with *Ampelion cinctus*, Tschudi (P. Z. S. 1855, p. 152, pl. civ.). P. L. Sclater, Ibis, 1868, p. 222.]

SCLATER, P. L. The Bell-birds of America. Intell. Observer, x. pp. 401-408.

A popularly written account of the genus *Chasmorhynchus*, illustrated by a coloured figure of *C. nudicollis*. The manner in which the four known species of the genus may have descended on Darwinian principles from an original *C. priscus* is ingeniously set forth in a diagram.

AMPELIDÆ.

Ampelis garrulus visited the British Isles, in unusual abundance, during the winter of 1866-67. J. Hancock, N. H. Trans. Northumb. & Durh. i. pp. 281, 282; E. Newman, Zoologist, S. S. pp. 560, 561; A. Clark-Kennedy,

tom. cit. p. 561; J. Cordeaux, *tom. cit.* p. 591; H. Stevenson, *tom. cit.* p. 596; J. A. H. Brown, *tom. cit.* pp. 606 & 907; T. E. Gunn, G. Garrett, and J. G. Overend, *tom. cit.* pp. 633, 634; H. L. Saxby, *tom. cit.* p. 680; H. Blackmore, *tom. cit.* p. 704. Its occurrence in Germany at the same season, G. Herpell, Zool. Garten, 1867, p. 159; A. Schöppf, *tom. cit.* p. 160: in Switzerland (where it had not appeared since 1811), — Girtanner, *tom. cit.* pp. 159, 160, and 280; B. Altum, *tom. cit.* p. 197; A. Röse, *tom. cit.* p. 270; — Favre, Bull. Soc. Sc. Nat. Neuchâtel, vii. p. 513.

Pachycephala græffii (Zool. Rec. iii. p. 89) ♂ and *P. vitiensis*, Gray, ♀, are figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. taf. viii. figg. 2, 3.

Pardalotus xanthopygus is described "as a new species" from Victoria. It belongs to the section which wants the wax-like appendages to the wing-feathers, and most resembles *P. punctatus*, but differs from it in having a more slender bill, white spots on the upper back, paler abdomen, greyish flanks, and conspicuously in the lower back being bright yellow. F. M'Coy, Ann. & Mag. N. H. 3rd ser. xix. p. 184 (March 1867). Under the name "*P. xanthopyge*" it was exhibited 11 Feb., 1867, as "a new species recently described." *Id.* Trans. & Proc. R. S. Victoria, viii. part i. p. 41 (May 1867); Ann. & Mag. N. H. 3rd ser. xx. p. 177. The same species was also described as new 28 Feb., 1867, before the Zoological Society of London, under the name "*P. leadbeateri*, Ramsay:" *Ibis*, 1867, pp. 255, 256. First described "in the 'Australasian' newspaper of Melbourne"! F. M'Coy, *op. cit.* 1868, p. 122. Figured: J. Gould, B. Austral. Suppl. part iv.

TIMALIIDÆ.

Garrulax rubiginosus and *G. poliocephalus* are two undescribed species in the Derby Museum of Liverpool from South-eastern Asia. E. Blyth, *Ibis*, 1865, p. 46.

Garrulax sannio is a new species from Middle China. R. Swinhoe, *tom. cit.* pp. 402, 403.

Garrulax leucogaster was the name proposed (P. Z. S. 1866, p. 549) for the Siamese race of *G. belangeri*. It is now identified with *Turdus diardi*, Less. *Ld.* Walden, *Ibis*, 1867, pp. 381, 382.

Garrulax delesserti and *G. gularis* are figured. J. Gould, B. Aa. part xix.

Timalia quadristriata and *T. bicolor* are two undescribed species in the Derby Museum of Liverpool, probably from Malacca. The former is akin to *T. leucotis*, Strickl.; the latter like *T. erythroptera*, but dark ashy, with a rufous mantle, wings, and tail. E. Blyth, *Ibis*, 1865, pp. 46, 47.

"*Myiothera murina*, S. Müller," is [apparently] an undescribed species. Together with *M. nigrogularis*, Temm., it is referred to *Turdinus*, and the first is the smallest of the group. E. Blyth, *Ibis*, 1865, p. 47.

HIRUNDINIDÆ.

Hirundo anchietæ is described as a new species from Benguela. J. V. Barboza du Bocage, Journ. Scienc. Lisboa, 1867, p. 150; *Id. tom. cit.* p. 338.

Hirundo equatorialis (Zool. Rec. iii. p. 90) appears to be readily distinguishable. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 979.

"*Hirundo andamanensis*, Tytler," is described as a new species from the Andamans. R. C. Beavan, *Ibis*, 1867, pp. 316, 317.

"*Hirundo velocissima*, P. Würt." (Naumannia, 1857, p. 433), is identical with "*H. fuscicapilla*, Heugl. Mus. Stuttg.," but no description is furnished. T. v. Heuglin, 1867, p. 297.

Phedina borbonica is figured. C. Coquerel, Album de la Réunion, 1865, pp. 19, 20, fig. 2.

Hirundo euchrysea, var. *dominicensis*, differs from the Jamaican form by its smaller bill, and in wanting the golden edging to the tertials and greater coverts. H. Bryant, Proc. Bost. Soc. N. H. 1866, p. 95.

Chelidon urbana imprisoning *Passer domesticus* in its nest. A. Clark-Kennedy, Zoologist, S. S. p. 915.

ORIOLIDÆ.

Twenty-five species of this family, all referred to the genus *Oriolus*, are represented in the Leyden Museum by 221 mounted specimens. H. Schlegel, Mus. P.-B. *Coraces*, pp. 98-116.

"*Oriolus icterus*, P. Würt." (Naumannia, 1837, p. 433), is supposed to be an immature *O. bicolor*. T. v. Heuglin, J. f. O. 1867, p. 300.

"*Oriolus andamanensis*, Tytler," is "provisionally" described as a new species from the Andamans. R. C. Beavan, Ibis, 1867, pp. 326, 327. (Cf. J. A. S. B. 1859, p. 272.)

Pycnorhampus cucullatus is described as a new species from the Ké Islands. H. von Rosenberg, Natuurk. Tijdschr. Nederl. Ind. xxix. (1866) p. 143. Identical with *Sphecotheres flaviventris*, Gould. H. Schlegel, N. T. D. iii. pp. 342, 343.

EDOLIIDÆ.

"*Edolus affinis*, Tytler," is described as a new species from the Andamans, having no frontal crest whatever, and the head-feathers approaching those of *Brhinga*. R. C. Beavan, Ibis, 1867, pp. 323, 324. Probably a race of *E. rangoonensis*, Gould (P. Z. S. 1836, p. 5). Ld. Walden, loc. cit.

VIREONIDÆ.

Hylophilus rubrifrons and *H. semicinereus* are described and figured as new species from the Amazons. The first is easily distinguishable by its red front and rufous tail; for though *H. ochraceiceps* has a rufous tail, it is of a more ochraceous tinge. The second is readily recognizable by its uniform pale cinereous colour below. P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 569, 570, pl. xxx. figs. 1, 2.

Vireo plumbeus, *V. vicinior*, *V. swainsoni*, and *V. pusillus* (Zool. Rec. iii. p. 91) are figured. D. G. Elliot, B. N. Am. part viii.

TYRANNIDÆ.

Muscisaxicola albifrons is distinct from *Tamioptera alpina* with which it had been united (Ibis, 1866, p. 57), being much larger, and the upper parts of a paler colour. *M. rubricapilla* (Zool. Rec. ii. p. 106) is carefully described. P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 986, 987.

Tyrannula stolidus, var. *lucaysiensis*, from the Bahamas, is described as larger than either *T. stolidus* of Jamaica or the Cuban *T. sagrae*, but resembling the latter most in colour. H. Bryant, Proc. Boston Soc. N. H. 1866, pp. 66, 67.

Tyrannula stolidus, var. *dominicensis*, from Eastern St. Domingo, is described as differing from *T. sagre* and *T. bahamensis* in the distinct yellow abdomen, and from *T. stolidus* in the very much broader rufous outer edging of the primaries. *Id. tom. cit.* pp. 90, 91.

T. caribæa, var. *hispaniolensis*, is described from Western St. Domingo. *Id. tom. cit.* p. 91.

Tyranniscus gracilipes is an undescribed species from Pebas in Eastern Peru and Venezuela, most nearly resembling *T. parvus*, Lawr. (*Ibis*, 1862, p. 12); but the last has a white throat and breast. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 981.

Myiodynastes superciliaris is a new species from Costa Rica, most resembling *M. chryscephalus* (Tsch.) from Peru; but that has a stouter bill, the feathers surrounding the crest and on the sides of the head are of a clear ash-colour, the throat is buff, and the breast-feathers are olivaceous in the middle. G. N. Lawrence, Ann. Lyc. N. York, 1867, p. 470. [It is probably *Hypermutres chryscephalus*, Cab. (J. f. O. 1861) from Costa Rica. O. Salvin, *Ibis*, 1868, p. 115.]

Contopus pertinax is figured. D. G. Elliot, B. N. Am. part vi.

DICRURIDÆ.

"*Melasoma nigerrima*, P. Würt." (Naumannia, 1857, p. 433), is *Melanornis melas*, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 284). T. v. Heuglin, J. f. O. 1867, p. 296.

Dicrurus marginatus is a new species in the Derby Museum at Liverpool, probably from South-eastern Asia. E. Blyth, *Ibis*, 1865, p. 40.

Dicrurus waldeni (Zool. Rec. ii. pp. 107, 108) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pp. 80, 81, pl. 23.

Dicrurus macrocercus apparently preys on young birds. D. Scott, *Ibis*, 1867, p. 136.

"*Dicrurus andamanensis*, Tytler," is a new species, peculiar in having hair-like feathers springing from the nostril. R. C. Beavan, *Ibis*, 1867, p. 323.

Dicrurus musicus is parasitic in its mode of feeding. E. L. Layard, *Ibis*, 1867, pp. 460, 461.

Dicrurus bracteatus is figured. S. Diggles, Orn. Austral. part xi.

LANIIDÆ.

WALDEN, [ARTHUR HAY] Viscount. On the Rufous-tailed Shrikes. *Ibis*, pp. 211-226, pls. v., vi.

The species so termed are those belonging to the group separated by Bonaparte as *Otomela* (R. Z. 1853, p. 436-438), a name which the author does not adopt. In this group the males have a plumage similar to that of the females of *Lanius collurio* and *L. bucephalus*; and their relationship to the first shows itself most in *L. cristatus*. The species of the group have all rufous tails and no white speculum on the primaries; but they are also in great confusion, which the author has successfully, as it seems to us, reduced. Eight species are referred to it, and their synonymy and tables of dimensions of specimens from various localities are given in much detail. All but one belong to the Indian 1867. [VOL. IV.]

Region. *Lanius isabellinus*, H. & E., from Arabia, is noticed as a transitional link, having a white alar bar; and this, with *L. phœnicurus*, Pall. (which has occurred in Europe: Naumannia, 1858, pp. 320, 425; Ibis, 1862, p. 66), and *L. magnirostris* ♂ & ♀, form the subjects of the plates.

Lanius pallidus (Zool. Rec. i. p. 78) is, according to De Filippi, identical with *L. pallidirostris*, Cassin (Proc. Acad. Philad. 1851, p. 244). T. v. Heuglin, J. f. O. 1867, p. 204.

Lanius minor occurred in Scilly in 1851, but was previously recorded (Zool. p. 3300) as *L. excubitor*. E. H. Rodd, Journ. R. Inst. Cornw. Oct. 1867, pp. 352, 353, Zool. S. S. p. 703 (cf. tom. cit. pp. 555-557, 605, 606).

Lanius melanthes is described as a new species from Middle and Southern China, at first appearance like a melanine form of *L. schach*, L. R. Swinhoe, Ibis, 1867, pp. 404, 405. [Identified with *L. fuscatus*, Less. (Tr. d'Orn. p. 373), but an important rediscovery of a lost species. Id. Walden, Ibis, 1868, pp. 68-70.]

"*Malacotus leucomelops* and *M. albicollis*, P. Würt." (Naumannia, 1857, p. 432), are identical with *Lanius nubicus*, Licht. T. v. Heuglin, J. f. O. 1867, p. 293.

Dryoscopus sublaetus, Cassin, a supposed young bird described. G. Hartlaub, P. Z. S. 1867, pp. 825, 826.

Lanius modestus is a new species from Benguela, noticeable for the absence of any superciliary mark. J. V. Barboza du Bocage, Journ. Scienc. Lisboa, 1867, p. 151.

Vanga (Xenopirostris) dami (Zool. Rec. ii. p. 108) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 80. figs. 1, 2.

Oreocera cristata is figured. S. Diggles, Orn. Austral. part xi.

Artamus sordidus, *A. superciliosus*, and *A. leucopygia* are figured. Id. op. cit. part xiii.

CAMPEPHAGIDÆ.

Cebilepyris, a supposed new species from Kamamil, in the Duke Paul of Württemberg's collection, is described, but not named. T. v. Heuglin, J. f. O. 1867, pp. 303, 304.

Graucalus layardi is an undescribed species from Southern India and Ceylon. It is *G. papuensis*, Sykes, and Jerdon, and *Campephaga macii*, Layard, and is of the same small size as *G. javensis*, having the anterior surface of the wing strongly barred underneath, and the outer rectrices very slightly tipped with white. E. Blyth, Ibis, 1866, p. 368.

Artamia bernieri, the type specimen figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. p. 86, pl. 25.

Pachycephala rufa is figured. Id. ut suprâ, pp. 86, 87, pl. 26. figs. 1, 2.

MUSCICAPIDÆ.

Monarcha godeffroyi is a new species from the island of Yap, near the Matelotas, nearly allied to *M. rugensis*, from the Hogoleu group; but the distribution of the colours is different. G. Hartlaub, P. Z. S. 1867, p. 829, pl. xxxviii.

M. fulviventris is described as a new species from the Bougainville (Echiquier) Islands, nearly allied to *M. inornata*, Less. (Voy. Coquille, Zool. pl. 15, fig. 1), but differing in the colour of the abdomen and secondary remiges. Another species of similar colouring is *M. cinerascens* (Temm.) from Timor. *Id. tom. cit.* p. 830.

Monarcha lessoni, Hombr., is figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. taf. vii. fig. 5.

Myiagra albibentris and *M. castaneiventris* (♂ & ♀) are figured. *Id. ut suprâ*, taf. ix. figs. 1-3.

Myiagra tytléri is described as a new species, from the Andamans, in general appearance like *M. azurea*, but larger, and the male entirely wanting the black throat usually present in that bird. Beneath it is more dully and above brighter coloured. R. C. Beavan, Ibis, 1867, p. 324.

Elminia teresita (Zool. Rec. i. p. 78) is stated to be identical with *E. alexina*, Heugl. (J. f. O. 1864, pp. 255, 256), and only differs from the West-African *E. longicauda* by being smaller and having conspicuous black lores. T. von Heuglin, J. f. O. 1867, p. 203.

Tchitrea corvina is a new species from Praslin in the Seychelles, the adult male entirely black with very long middle rectrices, the female and young male with the head steely-black, the body chestnut above, white beneath, and the remiges dusky with chestnut outer edges. E. Newton, P. Z. S. 1867, p. 345; Ibis, 1867, p. 349, pl. iv. (♂ & ♀).

Phylentoma unicolor is a new species from Borneo, resembling *P. velata*, but, except the white flank-feathers, wholly blue. E. Blyth, Ibis, 1865, p. 46.

Hylophorba ruticilla (Zool. Rec. ii. p. 109) is identical with *Calicalicus madagascariensis* (Linn.), and *Artamia rufa* (Gm.) is referred to the same genus. A. Grandidier, R. Z. 1867, pp. 386, 387.

Erythrostera parva occurred in Scilly, November 1865. E. H. Rodd, Journ. R. Inst. Cornwall. Oct. 1866, p. 151.

Newtonia brunneicauda (Zool. Rec. iii. p. 94) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 18. fig. 3.

Muscicapa madagascariensis is described as a new species, but is subsequently said not to be so, though with what it is identical is not stated. A. Grandidier, R. Z. pp. 86, 255.

MNIOTILTIDÆ.

Geothlypis rostratus is described as a new species from Nassau in the Bahamas, with a much stouter bill than *G. trichas*, the wing rounder, the tail much broader, and the whole bird much larger. Beneath also it is bright chrome-yellow. The heads of both species are figured. H. Bryant, Proc. Boston Soc. N. H. 1866, pp. 67, 68.

Dendroica gratiæ (Zool. Rec. ii. p. 111) is figured. D. G. Elliot, B. N. Am. part viii.

CINCLIDÆ.

SALVIN, OSBERT. On the genus *Cinclus*. Ibis, 1867, pp. 109-122, pl. ii., and pp. 382, 383.

A very philosophical monograph. The author admits geographical distribution as a secondary character in separating allied forms, but distinguishes between the relations which such forms

bear to each other, calling them "representative species" or "local races," according to the amount of variation. He recognizes 13 species in all, three of which are "local races" of *C. aquaticus* and three more of *C. pallasi*. Besides these there are four "representative species"—two of *C. aquaticus*, one (sp. n.) of *C. mexicanus*, and one of *C. leuconotus*. *C. sordidus* stands alone. An excellent diagnostic and synonymatic list follows these remarks.

Cinclus aquaticus of Britain and Central Europe is distinct from *Sturnus cinclus*, Linn.,—this, which is the exclusively northern form, being *C. melanogaster*, and occurring occasionally in England and as far south further east as Erzeroom. *Id. ut supra*, pp. 113–117. This last, however, breeds in the Pyrenees: H. B. Tristram, *Ibis*, 1867, pp. 466, 467.

C. ardesiacus is a new species from Veragua, allied to *C. mexicanus* but smaller, of a pale ash-colour, with a long bill and legs. O. Salvin, *ut supra*, p. 121, pl. ii.

TURDIDÆ.

WIESE, —. Der Drosselfang. *Journ. für Orn.* 1867, pp. 70, 71.

No remarks of very general interest.

The specimen taken near Münster (*Zool. Rec.* iii. p. 94) and recorded as *Turdus atrigularis* proves to be *T. ruficollis*. B. Altum, *J. f. O.* 1867, pp. 109, 110.

Turdus merula, the first migration of the young is southward to meet the early fruit, they subsequently advance in a body northward, following the ripening berries. H. Blake-Knox, *Zool. S. S.* p. 684. Figured: J. Gould, B. Gr. Br. part xii.; E. Bettoni, *Ucc. Lomb. tav.* 14.

Turdus naumanni, Temm., is a variety of *T. iliacus*. C. F. Dubois, *Arch. Cosmol.* 1867, p. 128.

Turdus viscivorus is figured. E. Bettoni, *Ucc. Lomb. tav.* 19.

Turdus protomomelas is described as a new species from the Himalayas, allied to *T. chrysolaus* and *T. hortulorum*. The type is in the Berlin Museum. J. Cabanis, *J. f. O.* 1867, pp. 286, 287.

Turdus phæopygius, Cab. (Schomb., *Reise Guian.* iii. p. 666), juv., is described and figured. P. L. Sclater & O. Salvin, *P. Z. S.* 1867, p. 568, pl. xxix.

Hypsipetes crassirostris is a new species from the Seychelles, much like *H. olivaceus* of Mauritius, but with a stronger bill, and the throat, breast, and belly yellowish. E. Newton, *P. Z. S.* 1867, pp. 344, 345; *Ibis*, 1867, pp. 344, 345.

Hypsipetes niveiceps (*Zool. Rec.* i. p. 80) has been sent from Northern China by Mgr. Perny. J. P. Verreaux, *R. Z.* 1867, p. 172.

Andropadus flarescens is a new species from Zanzibar, very like *A. insularis* from Madagascar in colour, but considerably smaller. There are now eight species of the genus known. G. Hartlaub, *P. Z. S.* 1867, p. 825.

Crateropus acaciæ occurs in Tripoli. W. T. H. Chambers, *Ibis*, 1867, pp. 101, 104.

"*Pericrocotus andamanensis*, Tytler," is described as a new species from the Andamans, hitherto confounded with *P. brevirostris*; but it is apparently

smaller and has the scarlet plumage of *P. speciosus*. R. C. Beavan, Ibis, 1867, p. 322. Closely resembling *P. xanthogaster* (Raffles). Ld. Walden, loc. cit.

Mimus (Leucomimus) polyglottus, var. *bahamensis**, is doubtfully described from Inagua in the Bahamas; but the differences are said to be very slight. H. Bryant, Proc. Bost. Soc. N. H. 1866, p. 68.

M. polyglottus, var. *dominicus*, is described from St. Domingo. *Id. tom. cit.* p. 93.

"*Mimus carunculatus*" (Zool. Rec. iii. p. 93) is referred to the genus *Anthochara*, and called *A. bulleri*. O. Finsch, J. f. O. 1867, pp. 342, 343.

Criniger tristis is a new species from Malacca, the size of *C. ruficaudatus* (sc. *phaeocephalus*), but with a smaller bill. E. Blyth, Ibis, 1865, p. 47; O. Finsch, J. f. O. 1867, p. 18.

FINSCH, OTTO. Ueber die Arten und das Genus *Criniger*. Journ. für Orn. 1867, pp. 1-36.

An excellent monograph, and of great utility to the student of the group. The author recognizes 30 species and gives their diagnoses. Three are new:—

Criniger charlottæ [lege *carlottæ*] from Borneo and Sumatra, like *C. tristis*, Blyth (Ibis, 1865, p. 47), but with the tail whole-coloured. *Id. ut supra*, pp. 10 and 19;

C. bemmeleni from Borneo, with loral streak and under parts yellowish-white, the rectrices with white tips on their inner webs. It is *Trichophororopsis typus*, Bp. C. R. 1854, p. 59. *Id. ut supra*, pp. 11 and 29; and

C. chloris from Halmahera, Batchian, and Morty, like *C. affinis*, Hombr. & Jacq., but having no yellow tip to the tail, and narrower loral streaks. It is *C. simplex*, Wallace (nec Temm.), Ibis, 1862, p. 320, and *C. flavicaudus*, G. R. Gray (nec Bp.), P. Z. S. 1860, p. 351: *Id. ut supra*, pp. 12 and 36.

——. Nachtrag zur Monographie des Genus *Criniger*. *Tom. cit.* pp. 107, 108.

The author adds notices of two additional species to those included in the first paper.

Iole virescens, Blyth (J. A. S. B. xiv. p. 573), is to be called *I. viridescens*, since *Ixus virescens*, Temm., should be referred to *Iole*, and this name has priority. E. Blyth, Ibis, 1867, p. 7.

Cinclocerthia ruficauda, *C. macrorhyncha* (Zool. Rec. iii. p. 94), and *C. gutturalis* are figured. P. L. Sclater and O. Salvin, Ex. Orn. pls. 10-12.

Cichlopsis leucogenys (Zool. Rec. i. p. 79) is figured. *Id. ut supra*, pl. 19.

Myiadestes (Zool. Rec. iii. p. 80) *obscurus*, *M. unicolor*, *M. ralloides*, and *M. elisabethæ* are figured. *Id. ut supra*, pls. 25-28.

Petrocossyphus saxatilis, on changes in its plumage. A. von Pelikan, Sitzungsab. z.-b. Gesellsch. Wien, 1867, pp. 117, 118.

SYLVIIDÆ.

KURR, — VON. Ueber die Abnahme der Singvögel im südwestlichen Deutschland. Württemberg. naturwiss. Jahreshefte, 1867, p. 75, 76.

* Not to be mistaken for *Mimus (Scotiomimus) bahamensis*, Bryant, Proc. Boston Soc. N. H. vii. p. 114; Baird, Rev. Am. B. i. p. 52.

A few remarks on the destruction of singing-birds by the Italians, which helps to depopulate south-western Germany.

Saxicola leucopygia (A. E. Brehm) is *S. leucocephala* (A. E. Brehm) at a less advanced age, and *S. pallida*, Rüpp., is *S. monacha*, Rüpp., ♀. E. C. Taylor, Ibis, 1867, pp. 58, 59.

Saxicola erythropygia is the name proposed for a bird very like *S. philothamna*, Tristr., but having the rectrices white, broadly tipped with black, and the rump chestnut-red. *Id. ut supra*, pp. 60, 61.

Saxicola and *Dromolæa*. Notes on the different species in Palestine. H. B. Tristram, Ibis, 1867, pp. 91-97.

Dromolæa nigra appears to be described as a new species from the Algerian Sahara. — Loche, Expl. scient. de l'Alg. Ois. i. pp. 200, 201.

Dromolæa albipileata is described as a new species from Dombé, West Africa; very like "*D. monticola*, Vieill. ?" (of which a description is also given), but larger, with the whole head and nape pure white, a longer tail, and the external rectrix white on both sides. J. V. Barboza du Bocage, Journ. Scienc. Lisboa, 1867, p. 151. Referred to *D. æquatorialis*, Hartl. (J. f. O. 1861, p. 112). *Id. tom. cit.* p. 338.

Rhodophila melanoleuca, Jerdon, is referred to the genus *Oreicola*, Bp.; and its specific name being already occupied there, it is proposed to be called *O. jerdoni*. E. Blyth, Ibis, 1867, p. 14.

Pratincola borbonica is described as a new species from Réunion. A. Grandidier, R. Z. 1867, pp. 88, 359. Identified with *Motacilla borbonica*, Bory de St. Vincent. H. Schlegel & F. Pollen, Rech. Faun. Madag. pp. 93, 94.

Ruficilla —, specimens from Loando and Benguela are doubtfully described as belonging to a new species, but left unnamed. J. V. Barboza du Bocage, Journ. Sc. Lisboa, 1867, p. 136. Referred to *Saxicola familiaris*, Bp.: *Id. tom. cit.* p. 338.

Cyanecula suecica (Zool. Rec. iii. p. 95) seen again in the Isle of Wight, 17th Sept. 1866. H. Hadfield, Zoologist, S. S. pp. 732, 733. Not again observed. *Id. tom. cit.* p. 321.

Luscinia philomela is figured. J. Gould, B. Gr. Br. part xi.

"*Tarsiger cucullatus*, Gould," is described as a new species. E. Blyth, Ibis, 1867, p. 16. Identified with *Pogonochla stellata* (Vieill.) (*P. margarita*, Sundevall). G. R. Gray, *tom. cit.* p. 384.

"*Callene albibentris*, Fairbank," is a new species from the Pulney Hills in Southern India, similar in form to *C. rufiventris*, Blyth, but smaller and differing widely in colour, being much bluer above, with a distinct light blue, almost whitish, frontal band, and having no trace of the ferruginous abdomen. *C. frontalis* is larger still, with a longer tail, and has the frontal band darker blue and the abdomen grey. W. T. Blanford, P. Z. S. 1867, pp. 832-834, pl. xxxix.

Irania fnoti (Zool. Rec. ii. p. 113) is said to be *Bessornis albigularis* ♀ (Zool. Rec. i. p. 80; iii. p. 95), of which species both sexes are figured. H. B. Tristram, Ibis, 1867, pp. 89-91, pl. i. [It is supposed also to be identical with *Cosnypha gutturalis*, Guér. (R. Z. 1843, p. 162), Ferret & Galinier, Voy. Abyss. iii. pp. 201, 202; Atlas, Zool. pl. 5, from Abyssinia! T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 285.]

Campicola livingstonii is a new species from the Zambesi, where it repre-

sents *C. pileata*, differing from it in being smaller, with less white on the forehead and black on the occiput, a darker back, and only a narrow gorget. H. B. Tristram, P. Z. S. 1867, pp. 887, 888.

Pycnophilus floccosus (Zool. Rec. iii. p. 96) is not uncommon in the Yarra Mountains. F. M'Coy, Ann. & Mag. N. H. 3rd ser. xx. p. 177.

Gerygone personata (Zool. Rec. iii. p. 95) is figured. J. Gould, B. Austral Suppl. part iv.

Calamoherpe nigrifrons breeds near Naumburg. C. Jex, Zool. Garten, 1867, pp. 404, 405, and 422. *Id.* J. f. O. 1867, pp. 356-358.

Acrocephalus australis is figured. S. Diggles, Orn. Austral. part xiv.

Calamoherpe arundinacea (Gm.) is figured. E. Bettoni, Ucc. Lomb. tav. 10.

Cettia (Potamodus) orientalis is a new species from Palestine, very like *C. sericea*, but with a longer and broader bill, and the lower parts of an olive hue. H. B. Tristram, Ibis, 1867, p. 79.

Sylvia aquatica has occurred again in England. J. E. Harting, Zoologist, S. S. pp. 946, 947; Ibis, 1867, pp. 468, 469.

"*Suya gangetica*, Jerdon," is a new species from the Upper Ganges. E. Blyth, Ibis, 1867, p. 23.

"*Franklinia cleghornia*, Jerdon," is described from the district north-west of Delhi as a race of *F. buchanani*, differing in having the upper parts pale rufescent-brown, deepening on the crown. E. Blyth, Ibis, 1867, p. 24.

Elisia lantzi and *E. chloropetoides* are described as new species from Madagascar. A. Grandidier, R. Z. 1867, pp. 86, 256. The last is subsequently referred to the genus *Prinia*.

"*Orthotomus salvadore*, P. Würt." (Naumannia, 1857, p. 433), is described. It is referred to *Camaroptera* and is a good species. T. v. Heuglin, J. f. O. 1867, p. 296.

Dumeticola brunneiceps is described as a new species, probably from the Himalaya, allied to *D. affinis* (Hodgs.), but with less broad white tips to the lower tail-coverts. E. Blyth, Ibis, 1867, pp. 19, 20.

Sylvia concolor, d'Orb., is referred to *Tanagra* and made the type of a new genus, *Xenospingus*. J. Oabanis, J. f. O. 1867, pp. 347-349.

"*Sylvia sordida*, P. Würt." (Naumannia, 1857, p. 433), is described. It is a *Curruca*, plainly distinct from *C. lugens*, Rüpp. (Wirbelth. taf. 42. fig. 2). T. v. Heuglin, J. f. O. 1867, pp. 294, 295.

Sylvia bowmanii is a new species from Palestine, very like *S. melanocephala*, but of a lighter build, with the black cap better defined, and the upper parts pale ash-colour. H. B. Tristram, Ibis, 1867, p. 85.

"*Bremomela parvula*, P. Würt." (Naumannia, 1857, p. 433), is an *Egitha*, and probably *Æ. punctatus*, Sundev. T. v. Heuglin, J. f. O. 1867, p. 300.

Drymæca cinerascens is an undescribed species from Sennaar and Keren. T. v. Heuglin, J. f. O. 1867, pp. 296, 297.

Drymæca eremita is a new species, from Palestine, most nearly allied to *D. striaticeps*, Tristr. (Ibis, 1859, p. 58), from the Sahara, but having the dark stripes on the head and neck extending further down, a distinct white eyebrow, the throat and breast striated with black, and the flanks of a deeper russet. H. B. Tristram, Ibis, 1867, p. 76.

"*Drymæca* ——" Antinori (Cat. Ucc. Affr. centr. p. 37), is very like *D.*

ruficeps, and has been named [*ubi?*] by Dr. Salvadori "*D. antinorii*." T. v. Heuglin, J. f. O. 1867, p. 202.

Drymæca (?) *troglodytes* (Zool. Rec. i. p. 81) is *D. ferruginea*, Heuglin. *Id. loc. cit.*

Eremomela (?) *canescens* (Zool. Rec. i. p. 81) is *E. elegans*, Heuglin. *Id. loc. cit.*

Eroessa tenella (Zool. Rec. iii. p. 96) is figured. H. Schlegel & F. P. L. ollen, Rech. Faun. Madag. p. 92, pl. 18, fig. 2.

Abornis maculipennis is described as a new species from Nepaul or Sikhim, allied to *A. superciliaris*, Tickell, but with two distinct yellowish-white wing-bands and an oval spot at the tip of the outer web of each tertial. E. Blyth, Ibis, 1867, p. 27.

Regulus cristatus and *R. ignicapillus* in captivity. — Hahn, J. f. O. 1867, pp. 211-214.

MOTACILLIDÆ.

"*Motacilla leucomelana*, P. Würt." (Naumannia, 1857, p. 433), is a deeply coloured old male of *M. capensis*. T. v. Heuglin, J. f. O. 1867, p. 297.

Motacilla yarrelli (♂, ♀, and juv.) and *M. alba* are figured. J. Gould, B. Gr. Br. part xii.

Anthus calthropæ is described as a new species from a living bird in the author's possession at Cape Town. E. L. Layard, B. S. Afr. pp. 121, 122.

Anthus rosaceus, Hodgson, from the Himalaya, with yellow primaries, is distinct from *A. cervinus* (Pall.), which probably does not occur in India. E. Blyth, Ibis, 1867, p. 32, note.

Anthus australis, *Cincloerhamphus cantillans*, and *C. rufescens* are figured. S. Diggles, Orn. Austral. part xii.

Anthus obscurus and *A. spinoletta* (Zool. Rec. ii. p. 115) are figured, J. Gould, B. Gr. Br. part xi.; also *A. richardi*, *Id. op. cit.* part xii.

TROGLODYTIDÆ.

Cyphorhinus laurencii (Zool. Rec. i. p. 81), *C. phæcephalus*, *Troglodytes solstitialis*, and *T. brunneicollis* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. 21-23.

CERTHIIDÆ.

GOULD, JOHN. On the Australian Genus *Climacteris*, with a Description of a New Species. Proc. Zool. Soc. 1867, pp. 975-977.

The group is structurally as distinct from *Certhia* as from *Sitta*; but the reasons for this opinion are not stated. The new species, making the seventh known, is called

Climacteris pyrrhonota. It generally resembles *C. leucophæa* ♀, except in the rust-red of the lower part of the back, rump, and upper tail-coverts. J. Gould, *ut supra*.

Xenicus gilviventris is described as a new species from New Zealand. A. v. Pelzeln, Verh. zool.-bot. Gesellsch. Wien, 1867, p. 316.

SITTIDÆ.

Sitta europæa is figured. E. Bettoni, Ucc. Lomb. tav. 7.

PARIDÆ.

Parus cæruleus, a variety of a uniform yellow killed in Scotland. J. A. Smith, Proc. R. Phys. Soc. Edinb. iii. pp. 207, 208.

Parus major and *P. cristatus* are figured. J. Gould, B. Gr. Br. parts xi., xii. The former also, E. Bettoni, Ucc. Lomb. tav. 22.

Lophophanes inornatus is figured. D. G. Elliot, B. N. Am. part v.

"*Penithestes melanoleucus*, P. Würt." (Naumannia, 1857, p. 433), is *Parus leucopterus*, Swains., with which also *P. leucomelas*, Rüpp. (N. Wirbelth. taf. 37. fig. 2), is identical. T. v. Heuglin, J. f. O. 1867, p. 295.

Melaniparus dorsatus (Rüpp. Syst. Uebers. p. 42, taf. 18) is identical with *Parus leuconotus*, Guér.-Ménev. (R. Z. 1843, p. 162). *Id. tom. cit.* p. 297.

Mecistura caudata is figured. E. Bettoni, Ucc. Lomb. tav. 12.

MALURIDÆ.

Sphenura broadbenti is described as "a new species" from Victoria, easily distinguished from the two known ones by the greater length of the wing, tarsus, and bill, as well as the rufous head and ears and the greyish-white over the front of the eye. F. M'Coy, Ann. & Mag. N. H. 3rd ser. xix. p. 185 (March 1867). It was exhibited as "a new species." *Id.* Trans. & Proc. R. S. Victoria, viii. part i. p. 41 (May 1867); Ann. & Mag. N. H. 3rd ser. xx. p. 177. Figured, J. Gould, B. Austral. Suppl. part iv.

Sphenæacus galactodes and *S. gramineus* are figured. S. Diggles, Orn. Austral. part xiii.

Atrichia rufescens (Zool. Rec. iii. p. 97) is figured. J. Gould, B. Austral. Suppl. part iv.

Malurus callainus is a new species from South Australia, closely allied to *M. melanonotus* and *M. splendens*. J. Gould, P. Z. S. 1867, pp. 302, 303. Figured. *Id.* B. Austral. Suppl. part iv.

Malurus hypoleucus is a new species, probably from Cape York, easily distinguished from every known one by the uniform dull blue of the whole upper and the equally uniform light hue of the lower surface. *Id.* Ann. & Mag. N. H. 3rd ser. xix. p. 369. Figured. *Id.* B. Austral. Suppl. part iv.

Malurus leuconotus is figured. *Id.* B. Austral. Suppl. part iv.

TANAGRIDÆ.

Euphonia rufivertex (Zool. Rec. iii. p. 98) is identical with *E. annæ* (Op. cit. ii. p. 117). The last name has priority. O. Salvin, P. Z. S. 1867, p. 137.

Euphonia purpurea is a new species, from an unknown locality in South America. It comes nearest to *E. violacea*, but is smaller, and the upper plumage is entirely of a violet-purple. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 466, 467.

Tanagrella dubusi, from Ecuador, is described and figured as a new species. C. F. Dubois, Arch. Cosmol. 1867, p. 118, pl. vii. [Identical with *Chlorochrysa calliparia* (Tsch.). P. L. Sclater, Ibis, 1868, pp. 112, 113.]

Phænicothraupis vinacea is described as a new species from New Granada, probably most nearly resembling *P. rubica*; but its deep and nearly uniform vinaceous colour will distinguish it from all the rest. G. N. Lawrence, Proc. Acad. Philad. 1867, p. 94.

Lanio aurantius and *L. leucothorax* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. 31, 32.

Tachyphonus rubrifrons (Zool. Rec. ii. p. 117) is proposed to be called *T. propinquus*, it being discovered that the red on the forehead of the type was due to a stain. G. N. Lawrence, Proc. Acad. Philad. 1867, p. 94.

Buarremon mesoxanthus, O. Salvin (P. Z. S. 1866, p. 72), is identical with *B. crassirostris* (Zool. Rec. ii. p. 117). The last name has priority, and the species is figured under it. O. Salvin, P. Z. S. 1867, p. 140, pl. xiv.

Buarremon flavovirens is a new species from Ecuador, differing from all others of the genus in its almost entire uniformity of colour. G. N. Lawrence, Ann. Lyc. N. York, 1867, p. 467.

"*Saltator plumbeiceps*, Baird," is a new species from Mazatlan, and the most northern representative of the genus known. It approaches *S. rufiventris*, Vig. (*S. vigorsii*, Gray), but is lighter beneath, the abdomen and crissum not being rufous, and the superciliary streak extending beyond the eye. It has also some resemblance to *S. grandis*, but is much paler beneath, the head lighter, and the black throat-stripe narrow, with a small line above it. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 477, 478.

Sylvia concolor, d'Orb., is referred to the Pityline group of Tanagers, and made the type of a new genus, *Xenospingus*, the precise characters of which, however, are not laid down. J. Cabanis, J. f. O. 1867, pp. 347-349.

Pitylus (*Caryothraustes*) *humeralis* is a new species from Bogota, not resembling any other in the distribution of its colours, but in dimensions much like *P. polioaster*, though the bill is a trifle smaller. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 467, 468.

POCEIDÆ.

"*Loxia africana*, P. Würt." (Naumannia, 1857, p. 433), seems to be the young of *Quelea orientalis*, a conspecific of *Q. sanguinirostris*. T. v. Heuglin, J. f. O. 1867, pp. 297, 299, 391, 392.

"*Ploceus solitarius*, *P. hamatocephalus*, *P. melanocephalus*, and *P. flavomarginatus*, P. Würt." (Naumannia, 1857, p. 433), are respectively *P. texor* (♀ or in winter dress), *Sycobius melanotis*, *Hyphantornis axillaris*, and *P. vitellinus* (in winter). *Id. tom. cit.* pp. 297-299. The third of these, *H. axillaris*, was in 1865 described as "*Ploceus* ——" (Zool. Rec. ii. p. 118). The specific name under which it appears in the Duke's list having been already bestowed on one of the genus, a new one is now given to it. *Id. tom. cit.* p. 298.

Ploceus pyrrhocephalus, Heugl. (J. f. O. 1864, p. 247), is *Sycobius melanotis*. *Id. tom. cit.* pp. 272, 273.

Euplectes pyrrhozona, Heugl. (J. f. O. 1864, p. 247), is *E. flammiceps*. *Id. tom. cit.* pp. 273, 274.

E. strictus, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 291), is *E. habessinica*. *Id. tom. cit.* pp. 373, 377.

Ploceus affinis, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 289), is *P. intermedius*, Rüpp. *Id. tom. cit.* pp. 383, 384.

P. aurantiiceps, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 290), and *P. chrysopygus* (Zool. Rec. i. p. 84), are referred to *P. vitellinus*. *Id. tom. cit.* pp. 384, 385.

Ploceus sakalava certainly did come from Madagascar, and is quite different from *P. (Nelicurvius) penzilis*. G. Hartlaub, P. Z. S. 1867, p. 823.

Ploceus algonda (Zool. Rec. iii. p. 99) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 34. figs. 1, 2.

Textor castaneoauratus (Zool. Rec. i. p. 84) is possibly identical with *P. melanocephalus*, Pr. W. v. Würtemberg (Icon. pl. 43 a) (*qu. nomen ineditum*?). T. v. Heuglin, J. f. O. 1867, p. 205.

Hyphantornis baglefecht, Blyth (J. A. S. B. xxiv. 1856, p. 301), is called *H. somalensis*. T. v. Heuglin, J. f. O. 1867, pp. 379, 380.

Hyphantornis cethiops, from Abyssinia, in the Leyden Museum, is described as resembling *Ploceus larvatus*. *Id. tom. cit.* p. 380.

Habropygga rara (Zool. Rec. i. p. 84) is confounded with *Estrela melano-gastra*, Heuglin (J. f. O. 1863, p. 273). *Id. tom. cit.* p. 205.

Ploceus aurantius and *P. leucophthalmus*, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 290), are referred to *Hyphantornis guerini*. *Id. tom. cit.* p. 388.

Hyphantornis concolor, from Nubia, in the Leyden Museum, is described as resembling *P. aurifrons*, but much smaller, and with trace of a dark spot before the eye. *Id. tom. cit.* p. 389.

H. chrysomelas, Heugl. (J. f. O. 1862, p. 25), is *H. personata* (Cassin). *Id. tom. cit.* p. 390.

Foudia sechellarum is a new species from Marianne in the Seychelles, dusky brown in winter plumage, with the forehead, occiput, and chin tinged with golden-yellow. The breeding-plumage of the male is unknown. E. Newton, P. Z. S. 1867, p. 346; Ibis, 1867, pp. 353, 354.

Foudia eminentissima, Bp. (Consp. Av. i. p. 446), from Zanzibar, is redescribed and figured from the original unique type. J. P. Verreaux, Bull. N. Arch. Mus. iii. pp. 7, 8, pl. 2. fig. 2.

Sycobius —. An immature specimen, from Rio Quilo, Cabinda, of a supposed new species allied to *S. cristatus* is described. J. V. Barbosa du Bocage, Jorn. Scienc. Lisboa, March 1867, p. 140.

Fringilla molybdocephala, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 293), is "*Nigrita arnaudii*, Puch.," Bp. (Consp. Av. i. p. 444). T. v. Heuglin, J. f. O. 1867, p. 371.

Cotiuspasser phaniceus, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 291), is *Vidua azularis*. *Id. tom. cit.* pp. 395, 396.

Munia kelaarti is the name given to the Cinghalese species, hitherto confounded with *M. pectoralis*. E. Blyth, Ibis, 1867, pp. 299, 300.

FRINGILLIDÆ.

"*Pheucticus tibialis*, Baird," is a new species from Costa Rica, bearing a general resemblance to *P. chrysogaster*, but with a shorter and stouter bill, the colour darker beneath, and the inner edge of the bend of the wing black; the tail is immaculate, and the only white on the wing is a spot at the base of the primaries. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 478, 479.

Oryzoborus melas is a new species from Pebas in Eastern Peru, allied to *O. crassirostris*, but with a thinner bill, a wider white wing-spot, and the rump-feathers not marked inwardly with white. P. L. Sclater & O. Salvin, P. Z. S. 1867, pp. 979, 980.

"*Spermophila atriceps*, Baird," from Mazatlan, allied to *S. torqueola*, but with the lower part of the back olivaceous instead of black, and other distinguishing features. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 479, 480.

Poospiza bonapartii is described and figured as a new species from Western Peru, like *P. torquata*, but having scarcely a tinge of red on the rump and the bill thicker, longer, and flesh-coloured at base. It may, however, possibly be identical with *P. dominicensis*, Bp. (Consp. Av. i. p. 473). P. L. Sclater, P. Z. S. 1867, p. 341, pl. xx.

Chlorospiza [?] *plumbea* and *Sycalis aureiventris* (Zool. Rec. ii. p. 118). A Spanish version of their descriptions. L. Landbeck, Anal. Univers. Chile, 1864, pp. 341-345.

Coturniculus mexicanus is described as a new species from Western Mexico. It is a northern form of *C. manimbe* and *C. peruanus*, in colour most resembling the former. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 475, 476. [Probably identical with *Peuceea botteri*, Sclat. (P. Z. S. 1857, p. 214). O. Salvin, Ibis, 1868, p. 115.]

"*Pyrgisoma xantusi*, Baird," is described as a new species from Western Mexico, very similar in size and appearance to *P. biarcuatum*, but without the white crescent on the side of the neck, and having the cheeks olive. Notes on the species last named and also *P. kieneri* are added. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 480, 481. [*P. xantusi* is apparently identical with *Melospiza rubricata* (Cab., Mus. Hein. i. p. 140). O. Salvin, Ibis, 1868, p. 115.]

Passerculus guttatus is a new species from Lower California, resembling *P. rostratus* in the size and form of the bill, but it is very much darker above, and differs from all its allies in the obscure greyish colouring of this part, and in being more closely spotted beneath. G. N. Lawrence, Ann. Lyc. N. York, 1867, p. 473.

Passerculus alaudinus is figured. D. G. Elliot, B. N. Am. part iii.

Zonotrichia boucardi is a new species from Mexico, much allied to *Peuceea*, in which genus it might perhaps be placed. The colours of the head and upper back much resemble those of *P. aestivalis*; but the red markings are rather brighter. P. L. Sclater, P. Z. S. 1867, pp. 1, 2, pl. i.

Zonotrichia melanotis is described as a new and well-marked species from Western Mexico, with a large bill, and readily known by the four strongly defined black stripes on the head, separated by three greyish-white ones. G. N. Lawrence, Ann. Lyc. N. York, 1867, pp. 473, 474. [Possibly the same as *Hæmophila humeralis*, Cab. (Mus. Hein. i. p. 132). O. Salvin, Ibis, 1868, p. 115.]

Zonotrichia belli is figured. D. G. Elliot, B. N. Am. part vi.

"*Pyrgita fazoglensis*, *P. cahirina*, and *P. pectoralis*, P. Würt." (Naumannia, 1857, p. 493), are referred, the first to *Xanthodira dentata*, Sundev., the second and last to local races of *P. domestica*. *P. crassirostris*, from the Duke Paul's collection, is a large deeply coloured *P. swainsoni*. T. v. Heuglin, J. f. O. 1867, p. 290.

Pyrgita montana and *Passer italiae* are figured. E. Bettoni, tavv. 9, 13.

Passer canicapillus is, with doubt, described as a new species from South-eastern Asia, of the size and proportions of *P. flavicollis*, but with a grey cap and rufous-brown supercilia. E. Blyth, Ibis, 1865, p. 46.

Montifringilla adamsi is figured. J. Gould, B. As. part xix.

Fringilla moreleti is identical with *F. tintillon*. J. V. Barboza du Bocage, Journ. Sc. Lisboa, 1866, p. 92.

Fringilla celebs and *Chlorospiza chloris* are figured. E. Bettoni, Ucc. Lomb. tavv. 11, 21.

Pyrrhula murina (cf. Zool. Rec. iii. p. 99), its distinctness from *P. coccinea* impugned. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1866, p. 92. [Cf. Ibis, 1868, p. 344.]

Pyrrhula vulgaris is figured. J. Gould, B. Gr. Br. part xi.

Pyrrhula erythrura, notes on its habits. — Huene, J. f. O. 1867, pp. 235–237.

Pinicola enucleator is figured. J. Gould, B. Gr. Br. part xii.

Pyrenestes melanotus, Heugl. (J. f. O. 1863, pp. 21, 163), is *P. frontalis*. T. v. Heuglin, J. f. O. 1867, p. 365.

Loxia curvirostra is exonerated from the charge of damaging the shoots of fir-trees. A. Röse, Zoolog. Garten, 1867, pp. 12–17, 476–480; A. Hellmann, tom. cit. pp. 350, 351.

Chrysomitris (Loximitris) dominicensis is a new species from Western St. Domingo, normal as far as colour goes, but in form of the bill (which with that of *C. notata* is figured) approaching *Loxia* (!). A. Bryant, Proc. Boston Soc. N. H. 1866, pp. 93, 94.

Chrysomitris spinus is figured. J. Gould, B. Gr. Br. part xii.

Agiothus exilis is figured. D. G. Elliot, B. N. Am. part iii.

Serinus luteolus is stated to be extending its range in Germany towards the north. A. v. Homeyer, J. f. O. 1867, p. 287.

"*Serinus flavifrons*, P. Würt." (Naumannia, 1857, p. 433), is *Crithagra personata*, Swains. T. v. Heuglin, J. f. O. 1867, p. 297.

Amandina optata is a new species from the Navigator's Islands, greatly resembling the Australian *A. temporalis*, but differing in the pale colour of the chin, throat, and sides of the head. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. p. 102, taf. x. fig. 1.

Erythrura cyanovirens is figured. *Id. ut supra*, taf. ix. fig. 3.

EMBERIZIDÆ.

"*Emberiza xanthogastra*, P. Würt." (Naumannia, 1857, p. 433), is supposed to be a highly coloured *Fringillaria navigaster* (Rüpp. Atl. taf. 25). T. v. Heuglin, J. f. O. 1867, p. 297.

Emberiza passerina, notes on. J. Vian, R. Z. 1867, pp. 199–206.

Emberiza giglioli is a new species from China, hitherto confounded (*P. Z. S.* 1863, p. 300) with *E. ciopsis*, Bp. R. Swinhoe, Ibis, 1867, pp. 393, 394.

Emberiza citrinella is figured. E. Bettoni, Ucc. Lomb. tav. 23.

Emberiza pusilla is figured. J. Gould, B. As. part xix.

Centrophanes lapponica (♂, ♀, & juv.) is figured. *Id.* B. Gr. Br. part xii.

Pipilo albigula is figured. D. G. Elliot, B. N. Am. part. iv.

ALAUDIDÆ.

Calandrella —. An unnamed species, resembling *C. brachydactyla*, but smaller, with a shorter tail and stouter bill, is recorded from Benguela. J. V. Barboza du Bocage, Jorn. Scienc. Lisboa, March 1867, p. 152.

Mirafrja horsfieldi is figured. S. Diggles, Orn. Austral. part xiv.

Alauda arborea, unusually abundant in England in 1867. T. E. Gunn, Zool. S. S. p. 634; Lord Clifton, tom. cit. p. 705; H. Stevenson, tom. cit. p. 729; W. Jeffery, tom. cit. p. 756; F. Bond and E. Newman, tom. cit. p. 792.

"*Melanocorypha maxima*, Gould," is mentioned as a new species from Affghanistan, with a remarkably slender bill. E. Blyth, Ibis, 1867, p. 46, note. Figured. J. Gould, B. As. part xix.

Pyrrhuloxia affinis and *P. sincipitalis* are two new species—the first from Madras, very like the Nubian *P. cruciata*, but with a black crown, a broad white forehead, and a smaller black nape-spot; the second from Aden, like *P. grisea*, but with the crown and nape sooty-black, and two white sincipital spots. E. Blyth, Ibis, 1867, p. 185.

ICTERIDÆ.

CASSIN, JOHN. A third study of the *Icteridæ*. Proc. Acad. Philad. 1867, pp. 45–74.

The first and second papers on this group were recorded by us last year (p. 101). This one, which is very elaborate, treats of the *Icterinæ*, including the genera *Icterus*, with five divisions (*Icterus* proper, *Euopsar*, *Andriopsar*, *Ateleopsar*, and *Cassiduloides*), *Pendulinus*, also with five divisions (*Bananivorus*, *Poliopsar*, *Melanopsar*, *Icterioides*, and *Pendulinus* proper), *Hyphantes*, with three divisions (*Hyphantes* proper, *Melanophantes*, and *Aporophantes*), *Cassicus*, with five divisions (*Cassicus*, *Cassidulus*, *Ostinops*, *Ocyalus*, and *Chypicterus*), and *Amblycercus*. Five species are described as new.

Icterus graysoni is a new species from the Tres Marias Islands, west coast of Mexico, resembling *I. pustulatus*, but larger, and with few or no spots on the back. *Idem*, ut *suprà*, pp. 48, 49.

Icterus (Euopsar) sclateri is a new species from Nicaragua and Guatemala, resembling *I. pustulatus*, but somewhat larger, of a rather pale orange-yellow, with the back black, and less white on the wings. It also somewhat resembles *I. gularis*, but is much smaller. It is "*I. mentalis*, Less.," Sclat. Cat. A. B. p. 134. *Idem*, ut *suprà*, p. 49.

Icterus (Andriopsar) salvini is a new species from Costa Rica, Nicaragua, and New Granada, very like *I. mesomelas*, but larger, and has the wing entirely black, or narrowly edged on the primaries only. *Idem*, ut *suprà*, pp. 51, 52.

Icterus (Andriopsar) grace-annæ [!] is a new species, probably from Peru, about the size of *I. xanthornis*, but in colour much resembling *I. mesomelas*. *Idem*, ut *suprà*, p. 52.

Cassicus melanurus is a new species, resembling *C. persicus*, but with the tail and under tail-coverts entirely black, and founded on a specimen in the Massena collection (now at Philadelphia) labelled "Guayaquil." *Idem*, ut *suprà*, p. 66.

Icterus pustulatus is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. 24.

STURNIDÆ.

Calornis kitchinæ is a new species, from Oualan in the Caroline Islands, most resembling *Lamprolornis corvina*, Kittlitz, but easily distinguishable by its shorter and, at the base, thicker bill. It is *L. columbina*, Kittl. (Kupfert. ii. p. 11, pl. 15. fig. 2) (*nec* Gmel.) and *C. opaca* (pt.), G. R. Gray (B. Trop. Isl. Pacif. p. 26). O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. p. 109.

Aplonis tabuenis (Gmel.) and *A. brevirostris*, Peale, are figured. *Iid.* ut *suprà*, Taf. x. figg. 2, 3.

Acridotheres tristis, on its utility in the destruction of Locusts. A. Vinson, Bull. Soc. Imp. d'Acclimat. 1867, pp. 181-189; A. Grandidier, *tom. cit.* pp. 440, 441.

"*Temenuchus andamanensis*, Tytler," is described as a new species, from the Anadamins, hitherto taken for *Sturnia erythropigia*; but it wants the red rump. R. C. Beavan, Ibis, 1867, pp. 329, 330.

"*Eulabes andamanensis*, Tytler," from the Andamans, differs from *E. religiosa* in having a stouter bill, and wanting the divisions in the occipital caruncles. R. C. Beavan, Ibis, 1867, p. 331. Decidedly distinct from *E. intermedia* and *E. javensis*, but possibly identical with *Gracula dubia*, Schl. (N. T. D. 1863, p. 7). Lord Walden, *loc. cit.*

Ptilorhynchus rawnsleyi is described and figured as a new species from Queensland, resembling both *P. holosericeus* and *Sericulus chrysocephalus* (sc. *melinus*). Indeed the author is doubtful to which of these genera it should be referred. S. Diggles, Orn. Austral. pt. xv.

Eight species of this family, referred to the genera *Sericulus* and *Ptilorhynchus*, are represented by 36 specimens in the Leyden Museum. H. Schlegel, Mus. P.-B., *Coraces*, pp. 98, 99, 117-120.

Sericulus melinus builds a "bower." E. P. Ramsay, Ibis, 1867, pp. 456, 457.

Sericulus chrysocephalus ♂ and ♀, with "bower," are figured. S. Diggles, Orn. Austral. parts xii. and xiii.

Chlamydera guttata is figured. J. Gould, B. Austral. Suppl. part iv.

"*Juida phœnicophœa*, P. Würt." (Naumannia, 1857, p. 432), is *Lamprotornis purpureoptera*, Rüpp. (Syst. Uebers. p. 64, taf. 25), as is also *L. aneocephalus*, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 36). T. v. Heuglin, J. f. O. 1867, p. 294.

"*Lamprotornis guttatus*, *L. argyrophthalmus*, and *L. cinereiceps*, P. Würt." (Naumannia, 1857, pp. 432, 433), are respectively *L. chalybeius*, Ehr., *L. cyanogenys*, Sundev., and *Notauges chrysogaster*, juv. *Id. loc. cit.*

Lamprotornis purpureus is described as a new species from Mossamedes, very distinct from any other of the genus. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1867, p. 334.

PARADISEIDÆ.

Fourteen species of this family, referred to the genera *Paradisea* and *Epimachus*, are represented by 201 mounted specimens in the Leyden Museum. Of *P. apoda* there are 45 examples, *P. regia* 38, *P. (Semioptera) wallacii* 25! H. Schlegel, Mus. P.-B. *Coraces*, pp. 79-98, and 149.

Paradisea apoda; notes on its habits. H. von Rosenberg, Natuurk. Tijdschr. Nederl. Ind. xxix. (1866) pp. 137-142.

CORVIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 9^{me} Livraison. CORACES. Leyde: 1867. Royal 8vo, pp. 1-149.

The author in this portion of his Catalogue groups together a most heterogeneous assemblage of birds, *Corvidæ*, *Paradisæidæ*, *Oriolidæ*, *Sturnidæ*, but, worst of all, *Coraciidæ*, so that it is almost impossible to give here a clear account of them. The *Corvidæ*, in which we include the author's genera *Corvus*, *Nucifraga*, *Pica*, *Cyanocorax*, *Picathartes*, *Pyrhocorax*, *Garrulus*, *Cissa*, *Glaucopsis*, *Chalybeus*, *Cracticus*, and *Lycocorax*, appear to be represented in the Leyden Museum by 685 mounted specimens, belonging to 116 species (besides a single cranium belonging to another); but this number would doubtless be greatly enlarged by naturalists holding other views than those of Prof. Schlegel. (Cf. *Ibis*, 1867, p. 111.)

Corvus coronoides, the two races (or species confounded under this name) (Zool. Rec. ii. p. 121) remarked upon. E. Blyth, P. Z. S. 1867, pp. 565, 566.

Corvus corax is figured. J. Gould, B. Gr. Br. part xii.

Garrulus glandarius is figured. E. Bettoni, Ucc. Lomb. tav. 24.

Cyanus macrolopha is figured. D. G. Elliot, B. N. Am. part iv.

Pica —. A living bird, with a yellow bill, observed in Scotland. J. A. H. Brown, Zool. S. S. pp. 706, 707; A. Newton, *tom. cit.* p. 757. Supposed to be *P. mittalli* [!]: E. Newman, *loc. cit.* and p. 913. Objection to this supposition: R. G. Beckwith, *tom. cit.* pp. 826, 827; J. A. H. Brown, *tom. cit.* pp. 877, 878; A. Newton, p. 913. A similar bird observed in Devonshire: G. F. Matthew, *tom. cit.* p. 1016.

Dendrocitta himalayensis is separated from *D. sinensis*, which has a comparatively short tail, and the middle rectrices black throughout; the wing-feathers have bright, glossy margins, and the wing-spot is much less developed. It is a common Himalayan bird. E. Blyth, *Ibis*, 1865, pp. 45, 46; *Id. op. cit.* 1867, p. 37.

Cyanocorax bellus is described. H. Schlegel, Mus. P.-B. *Coraces*, pp. 50, 51. [Identical with *Pica mystacalis*, Geoff. (Mag. Zool. 1835, pl. 34), and *C. uroleucus*, Heine (J. f. O. 1860, p. 115). P. L. Selater, *Ibis*, 1868, p. 111.]

Garrulus brandti, Hartl. (R. Z. 1845, p. 52), from Japan, is figured. H. Whitely, jun., *Ibis*, 1867, p. 200, pl. iii.

Fregilus himalayanus and *Pyrhocorax alpinus*, notes on. R. C. Beavan, *Ibis*, 1867, pp. 136-138, and 142.

Nucifraga caryocatactes. Pastor P. W. Theobald's description of its mode of breeding' (cf. Zool. Rec. i. p. 64, ii. p. 121) and a figure of its egg. A. Newton, P. Z. S. 1867, pp. 162-164, pl. xv. fig. 2. Nest and eggs exhibited: Lord Lilford, *tom. cit.* p. 687.

Nucifraga immaculata is a name given to a new species (founded on one of Mr. Hodgson's drawings) wholly unspotted. E. Blyth, *Ibis*, 1867, p. 36.

Callæas olivascens is a new species from New Zealand, larger than *C. cinerea*, for which it was mistaken by the author (Reise Novara, Vögel, p. 86), and with the riatal caruncles darker. A. v. Pelzeln, Verhandl. zool.-bot. Gesellsch. 1867, p. 317, note; O. Finsch, J. f. O. 1867, p. 343.

COLUMBÆ.

COLUMBIDÆ.

TEGETMEIER, W. B. Pigeons, their Structure, Habits, and Varieties. London: 1867. 8vo.

The numerous domesticated races of *Columba livia* are very fully and scientifically treated, so that this work is a valuable aid to the professed ornithologist. [Cf. Zoologist, S. S. pp. 929-943.]

Chamæpelis anais (Less.) is probably identical with *Columba erythrothorax*, Meyen (Act. L.-C. xvi. Suppl. p. 98, tab. 16), and this last is the older name. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 989.

Leptoptila cassinii is a new species, twice confounded (Proc. Acad. Philad. 1800, p. 195, and Ann. Lyc. New York, vii. p. 333) with *L. verreauxi*, from which it is very different in appearance, the former being very dark in colour. the latter very light. G. N. Lawrence, Proc. Acad. Philad. 1867, pp. 94, 95,

Scardafella inca is figured. D. G. Elliot, B. N. Am. part vi.

Geotrygon sylvatica; notes on its habits, with reference to the Columbine affinity of *Didus*. R. Hill, Proc. Acad. Philad. 1867, pp. 130, 131.

Ptilopus aurantiiventris is described as a new species from the Ké Islands. R. von Rosenberg, Natuurk. Tijdschr. Nederl. Ind. xxix. (1866) p. 144.

Ptilopus aganzini is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 37, figs. 1, 2.

Ptilopus, the species of this genus found in the Pacific Islands are the subject of some valuable remarks. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. pp. 121-134.

P. caesarinus (Zool. Rec. ii. p. 110) is *P. peroussii*, Peale, and is figured. *Id. tom. cit.* pp. 110-112, taf. xi. fig. 1.

Columba vitiensis, Quoy, is figured. *Id. tom. cit.* taf. xi. fig. 2.

Columba polleni (Zool. Rec. ii. p. 122) is figured. H. Schlegel & F. P. L. Rech. Faun. Madag. pl. 37.

Columba malaccensis [*Geopelia striata*] was shot in September 1861, near Prague. E. Schauer, Sitzungsab. z.-b. Gesellsch. Wien, 1867, p. 40.

Carpophaga luctuosa and *C. leucomela*, their heads figured. S. Diggles, Orn. Austral. part xv.

Lophophaps leucogaster is described and figured as a new species nearly resembling *L. plumifera*, but larger and with a whiter head and brighter rayed markings above. J. Gould, B. Austral. Suppl. part iv.

Lophophaps ferruginea is figured. *Id. loc. cit.*

Treron nudifrons is described as a new species from Cabinda (West Africa), allied to *T. calva*. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1867, p. 144.

Turturæna —, a male example from St. Thomas's Isle (West Africa) is doubtfully described as a new species, but left unnamed. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1867, pp. 144, 145. Referred to *Columba chlorophæa* (Zool. Rec. iii. p. 103). *Id. tom. cit.* p. 338.

"*Peristera parallinostigma*, P. Würt." (Naumannia, 1857, p. 434) is *P. afra*. T. v. Heuglin, J. f. O. 1867, p. 301.

Columba risoria (Zool. Rec. i. p. 87) should be admitted to the European Fauna. — Alléon, R. Z. 1867, pp. 5-7. [Cf. Ibis, 1868, pp. 222, 223.]

"*Turtur turturoides*, P. Würt." (Naumannia, 1857, p. 434) is *T. amitus*. T. V. Heuglin, J. f. O. 1867, p. 301.

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Turtur rostratus, Bp. (Consp. Av. ii. p. 62), from Marianne in the Seychelles, differs in the form of the bill and wings from *T. picturatus* (Temm.). E. Newton, Ibis, 1867, pp. 354, 355, figs.

Streptopelia barbaru (Zool. Rec. i. p. 87 *) is identical with *S. vinacea*. T. V. Heuglin, J. f. O. 1867, p. 206.

DIDUNCULIDÆ.

Didunculus strigirostris, the egg figured (cf. Zool. Rec. ii. p. 124). A. Newton, P. Z. S. 1867, p. 164, pl. xv. fig. 6. Head of immature bird, and egg (from description) figured. O. Finsch & G. Hartlaub, Beitr. Faun. Central-polyn. pp. 150-152, tab. xi. fig. 3, and tab. iii. fig. 1.

DIDIDÆ.

Didus (sp.). The picture mentioned last year (Zool. Rec. iii. pp. 106, 107) is supposed to represent the Didine bird of Bourbon. A. Newton, P. Z. S. 1867, pp. 179, 180.

Pezophaps solitaria, a large number of its bones obtained. E. Newton, Ibis, 1867, p. 146.

GALLINÆ.

GRAY, G. R. List of the Specimens of Birds in the Collection of the British Museum. Part V. *Gallinæ*. London: 1867. 12mo, pp. 120.

How necessary this publication was may be judged from the fact that the same author's 'List' of 1844 shows that the Museum then contained 172 species, while the present includes 342, or almost exactly double! The various lists published by Mr. Gray are so well known that, though we have not before had occasion to notice one of them in the 'Record,' it would be useless to occupy space by dwelling on their many meritorious features. The present work has several advantages over its predecessors. Species introduced for the first time to notice are described to the number of 24; and the names of those of which the Museum does not contain specimens are also added, though in these cases references to the places where they may be found described are omitted—a fact much to be regretted. The new species belong to *Cracidæ* (7), *Phasianidæ* (3), *Tetraonidæ* (2), and *Tinamidæ* (12). The genera *Thinocorus*, *Attagis*, and *Chionis* are classed by Mr. Gray among the *Gallinæ*; but there is nothing new respecting them. [Cf. Ibis, 1868, p. 99.]

CRACIDÆ.

Chamapetes unicolor is a new species from Veragua allied to *C. goudoti*, but much smaller, the body of one colour and that deeper in hue. The primaries in this genus are greatly excised, and on this structure depends the curious noise made by the birds. O. Salvin, P. Z. S. 1867, pp. 159, 160.

"*Penelope jacquini* (Reichenb.)" is described. G. R. Gray, List B. Br. Mus. *Gallinæ*, p. 8.

Ortalia superciliosa, *O. bronzina*, *O. plumbeiceps*, *G. wagleri*, and *O. cinereiceps* are new species. The precise locality of the first is not stated; the

• *Errata* "*barbara*."

second is from Venezuela, and is like *O. canicollis*, Wagl., but of a lighter colour on the back; the third is from Honduras and Guatemala, the fourth from California and Mexico, and the fifth, which is like *O. garrula* (Humboldt), but has an ashy head with the abdomen and tips of the tail-feathers brownish-white, comes from the north-west coast of America. *Idem*, *ut supra*, pp. 10-15.

Craz sclateri and *C. daubentoni* are new species: the first, which is from Mexico, may be the same as *C. sloanii*, Reichenb.; and the second, probably from Central America, is *C. globicera*, Temm., and possibly *C. aldrovandi*, Reichenb. *Idem*, *ut supra*, pp. 14, 15.

PHASIANIDÆ.

Gallus alector (ferus) is figured. C. J. Sundevall, Sv. Fogl. pl. lxxiii. fig. 1.

Phasianus versicolor, on its acclimatization. A. Touchard, Bull. Soc. Imp. d'Acclimat. 1867, pp. 55, 56.

Phasianus sammerringi and *P. scintillans* (Zool. Rec. iii. p. 107) are figured. J. Gould, B. As. part xix.

Thaumalea amherstiae ♂ has been sent from Northern China by Mgr. Perny. J. P. Verreaux, R. Z. 1867, p. 173.

Lophophorus lhuysii (Zool. Rec. iii. p. 107) is described at some length. J. Verreaux, Bull. Soc. d'Acclim. 1867, pp. 706-709.

Crossoptilum auritum and its congeners (Zool. Rec. i. p. 88, ii. p. 125), notes on. F. Schlegel, Zool. Gart. 1867, pp. 474-476; (translated) Bull. Soc. d'Acclim. 1867, p. 780, with addition of note by A. Delondre. *C. auritum* (Pall.) is distinct from *C. tibetanum* and *C. manchuricum*. G. R. Gray, List B. Br. Mus. Gallinæ, p. 81.

Ithaginis geoffroyi is a new species from Northern China. J. Verreaux, Bull. Soc. Imp. d'Acclim. 1867, pp. 709-711.

Polyplectrum cyclospilum, *P. atelospilum*, and *P. enicospilum* (lege *henicospilum*) are described as new species, the first and last from North-eastern India, the second (of which the tail only is known) from the Loa Mountains. G. R. Gray, List B. Br. Mus. Gallinæ, pp. 23, 24.

Numida vulturina is common at Lamoo, on the coast of Zanzibar. J. Kirk, P. Z. S. 1867, p. 953.

TETRAONIDÆ.

Pternistes sclateri is described and figured as a new species from Mossamedes, smaller than *P. nudicollis* or *P. rubricollis*, and much resembling *P. humboldti* from Tete, but with the brown and white on each feather of the breast and belly reversed in position. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1867, pp. 327, 328, est. vi.

Francolinus kirkii is described as a new species, superficially resembling *F. pileatus*, but smaller and with arrow-shaped black spots on the upper tail-coverts, and apparently differently coloured beneath. G. Hartlaub, P. Z. S. 1867, p. 827.

Francolinus psilolæmus is a new species from Shoa, allied to *F. gutturalis*, but having a white throat with numerous black spots, one at the tip of each feather. G. R. Gray, List B. Br. Mus. Gallinæ, p. 50.

Francolinus rostratus is described as a new species. *Id. ut supra*, p. 52. [Identified with *F. granti* (Zool. Rec. ii. p. 126). *Id. Ibis*, 1868, p. 99.]

Lagopus scoticus has been observed to perch on trees, and therefore another

supposed distinction between it and *L. albus* is removed. G. Norman, Zool. S. S. p. 607. Considered to be distinct. H. Doubleday, *tom. cit.* pp. 707, 708. Identity of their juvenile plumage. G. Norman, *tom. cit.* p. 758.

Tetrao brachydactylus, Temm., is identical with *T. albus*. J. Vian, R. Z. 1867, pp. 206, 207. (Cf. H. Schlegel, Rev. Crit. pp. 88, 89.)

Lagopus persicus (Zool. Rec. ii. p. 126) is admitted to be a variety of *L. scoticus*. G. R. Gray, List. B. Br. Mus. *Gallinæ*, p. 91.

Lagopus reinhardti and *L. scoticus* are figured. C. J. Sundevall, Sv. Fogl. lxxiii. figs. 2, 3.

Tetrao urogallus, *T. tetrix*, *Bonasia sylvestris*, *Lagopus albus*, and *L. mutus*, with their various hybrids and varieties of plumage, are figured. L. Lloyd, Game Birds and Wild Fowl of Sweden and Norway.

Sterna perdix is figured. E. Bettoni, Ucc. Lomb. tav. 8.

Malacoturnix is the name for a proposed new genus, of which the type, *Rollulus superciliosus*, J. E. Gray (Knowsley Menag. *Aves*, pl. xvi.), has recently occurred in India, but its characters are not defined. E. Blyth, P. Z. S. 1867 (May 9), pp. 474, 475. The generic name changed to *Malacortyx*, and the specific to *superciliaris*! *Id.* Ibis, 1867 (July), pp. 313, 314.

Coturnix pectoralis is figured. S. Diggles, Orn. Austral. part xv.

Excalfatoria chinensis and *E. minima* are figured. J. Gould, B. As. part xix.

Odontophorus leucolemus is a new species from Veragua, easily distinguishable by its white throat and the hidden white spots on its black breast. O. Salvin, P. Z. S. 1867, p. 161.

Ortyx graysoni is a new species from Western Mexico resembling *O. pectoralis*, but larger and having no black before the eye and a narrow black collar below the white throat. G. N. Lawrence, Ann. Lyc. New York, 1867, pp. 476, 477.

PTEROCLIDÆ.

Syrnhytes paradoxus said to have occurred in Scotland May 13, 1863, a date some days earlier than hitherto believed to have been the case (cf. Ibis, 1864, pp. 200, 210). J. A. H. Brown, Zoologist, S. S. p. 898. Other notes of its occurrence in Scotland. J. A. Smith, Proc. R. Phys. Soc. Edinb. iii. pp. 178-181 and 207. Figured. J. Gould, B. As. part xix.; C. J. Sundevall, Sv. Fogl. pl. lxxiii. fig. 4.

TURNICIDÆ.

Pedionomus torquatus is figured. S. Diggles, Orn. Austral. part xv.

MEGAPODIIDÆ.

Megapodius senar and *M. eremita* are described as new species, the former from the Pelew and the latter from the Bougainville (Echiquier) Islands. G. Hartlaub, P. Z. S. 1867, pp. 830, 831.

TINAMIDÆ.

Tinamus gutturalis, *T. bonapartii*, *T. nigricapillus*, *T. radiatus*, *T. longirostris*, and *T. bimaculatus* are new species. The first, from Brazil, is like *T. subcristatus* in general appearance, the second is from the valley of Aragua, the third from Chili, the fourth from Bolivia, and of the fifth and sixth the localities are not precisely known. G. R. Gray, List. B. Br. Mus. *Gallinæ*, pp. 97-101.

Rhynchotis maculicollis, *R. ornatus*, and *R. pentlandi* are new species from Bolivia; the first is of the size of *R. rufescens*. *Idem*, *ut supra*, pp. 102, 103.

Rhynchotis rufescens, remarks on its breeding in captivity. A. D. Bartlett, P. Z. S. 1867, p. 687.

Nothura marmorata, *N. darwini*, and *N. assimilis* are new species: the first, from Bolivia, is of the size of *N. major*; the second, which is *N. minor*, Gould (*nec* Spix), is from Bahia Blanca, and of the size of *N. media*; the third is like *N. boraquira*, Spix, but pale chestnut on the back with fewer black markings. G. R. Gray, List B. Br. Mus. *Gallinæ*, pp. 104, 105.

OPISTHOCOMIDÆ.

Opisthocomus cristatus, its egg figured. A. Newton, P. Z. S. 1867, p. 164, pl. xv. fig. 7. Its habits described: A. R. Wallace, P. Z. S. 1867, p. 585.

GRALLÆ.

RALLIDÆ.

Three species of this family, all referred to the genus *Heliornis*, Bonn. (*nec* Boie), are represented in the Leyden Museum by ten specimens, and placed in the same group as various very distantly related forms. H. Schlegel, Mus. P.-B. *Urinatores*, pp. 48-50. [See *Spheniscidæ*.]

"*Gallinula aterrima*, P. Würt." (Naumannia, 1857, p. 434), with *Ortygometra erythropus*, Heugl. (Sitz. k.-k. Akad. Wien, 1856, p. 316), are referred to *G. flavirostris*, Swains. T. v. Heuglin, J. f. O. 1867, p. 303.

Gallinula pumila, Sclat. (Ibis, 1859, p. 249, pl. vii.), and *G. minor*, Hartl. (J. f. O. 1860, p. 341), are referred to *G. angulata*, Sundev. (Cef. k. V.-Ak. Förh. 1850, p. 110). O. Finsch & P. L. Sclater, Ibis, 1867, p. 254.

Corethrura elegans has occurred in Natal. *C. pulchra*, with which it has been identified by Prof. Schlegel (Mus. P.-B. *Ralli*, pp. 26, 27), differs from it in the white tear-spots of the upperside. O. Finsch, J. f. O. 1867, p. 249.

Porzana erythropus is figured and described as a new species from Lima, about the same size as *P. carolina*, but shorter and stouter. The wings are short and concave, and the feet are remarkably shorter and stouter than in any other Crake known to the author. [This last peculiarity is not apparent in the figure; but in the unique specimen the feet are not in a very good state.] It may possibly require a separate genus. P. L. Sclater, P. Z. S. 1867, pp. 343, 344, pl. xxi.

Porzana fasciata is an undescribed species from Eastern Peru, allied to *P. castanea*, but having a barred belly. P. L. Sclater & O. Salvin, *tom. cit.* p. 981.

Porzana rubra is figured. *Id.* Ex. Orn. pl. 16.

Crex pratensis, supposed to hibernate. H. Blake-Knox, Zool. S. S. pp. 679, 680.

MILNE-EDWARDS, ALPHONSE. Mémoire sur une espèce éteinte du genre *Fulica* qui habitait autrefois l'île Maurice. Ann. Sc. Nat. 5^e sér. Zool. viii. pp. 194-220, pls. 10-13.

Together with the other birds' bones found in the Mare aux Songes at Mauritius (Zool. Rec. iii. pp. 75, 76, 104), were the pelvis, tibia, and tarso-metatarsus of a *Fulica*, obtained by Mr. Edward Newton, which the author, after careful examination, shows must have belonged to an extinct species of large size, and applies to it the name of *F. newtoni*. He also quotes passages from accounts of ancient voyages which may have reference to it. The specimens are beautifully and amply figured, representations of the corresponding parts of several other forms of *Rallidæ* being given for the sake of comparison.

SCLATER, P. L. Note on the species of the genus *Tribonyx*.

Ann. & Mag. Nat. Hist. 3rd ser. xx. pp. 122, 123.

Three species are distinguished:—(1) *T. mortieri*, Dubus, from Western Australia, of large size, the wings striated with white, and with a large white hypochondrial patch; (2) *T. gouldi*, Sclater (*T. mortieri*, Gould, nec Dubus), from Tasmania, of middle size, with unstriped wings, but a large white hypochondrial patch, and (3) *T. ventralis*, from Australia generally (?), the smallest with unstriped wings, and black flanks spotted with white. The true *T. mortieri* is figured, P. Z. S. 1867, pp. 816, 817.

Rallus hypoleucus is a new species from Tongatabu, founded on the "Philippine Rail, var. β ," Latham (Synops. iii. p. 232), in Banks's collection, and apparently not seen since. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. pp. 163, 164.

Rallina pacilloptera (Zool. Rec. iii. p. 108) is figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. Taf. xii. fig. 1.

Notornis mantelli, Notes on. D. Mackay, Ibis, 1867, pp. 144, 145.

Porphyrio indicus and *P. vitiensis* are figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. Taf. xii. figg. 2, 3.

Porphyrio, sp. ?, has occurred in Hampshire (*qu.* Zool. Rec. iii. p. 109 ?). F. A. Hawker, Zoologist, S. S. p. 829.

Aramides albiventris is described as a new species from British Honduras, differing from *A. cayennensis* in the paler breast and a white mark on the abdomen. G. N. Lawrence, Proc. Ac. Philad. 1867, p. 234.

Aramides zeblebori (Zool. Rec. ii. p. 129) is possibly identical with "*Rallus rhythirhynchus*, Vieill.", to which also *R. cæsius*, Tech. (nec Spix), *R. sanguinolentus*, Swains., and *R. bicolor*, are referred; but it must be carefully distinguished from *R. nigricans*, Vieill. (*Gallinula cæsia*, Spix), with which it has been confounded. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 991. (*Cf. etiam tom. cit.* p. 333.)

SCOLOPACIDÆ.

HOFFMANN, JULIUS. Die Waldschnepfe. Ein monographischer Beitrag zur Jagdzoologie. Stuttgart: 1867. 8vo, pp. 151.

A very carefully written monograph of *Scolopax rusticola*, with some remarks on *S. minor*. The curious property of the former being able to inflect the maxilla (*cf.* Zool. Rec. ii. p. 130)

seems to be well established. (Cf. J. f. O. 1867, pp. 110-112; Zoolog. Garten, 1867, pp. 445-448; Ibis, 1868, pp. 109, 110.)

Actitis longicauda occurred in Cornwall in the autumn of 1865. E. H. Rodd, Journ. R. Inst. Cornw. Oct. 1866, p. 151. Also occurred in New South Wales in 1848, and is figured thence. J. Gould, B. Austral. Suppl. pt. iv.

Totanus glareola, a flock of from 80 to 100 seen in Kent. F. D. Power, Zoologist, S. S. p. 991.

Totanus fuscus (æst. & hyem.) is figured. J. Gould, B. Gr. Br. pt. xii.

Totanus lartetianus, *Elorius paludicola*, *Tringa gracilis*, and *Numenius antiquus* are figured. A. Milne-Edwards, Ois. Foss. Fr. pls. lxiii, lxiv.

"*Actitis minor*, P. Würt." (Naumannia, 1857, p. 434), is only *A. hypoleucus*. T. v. Heuglin, J. f. O. 1867, p. 303.

Limosa uropygialis is figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. Taf. xiii. figg. 1, 2.

Numenius arcuatus, with a monstrous bill.—Schlotthauber, J. f. O. 1867 pp. 358-360.

Numenius microrhynchus (Zool. Rec. iii. p. 109) is probably referable to *N. borealis*, Forst. P. L. Sclater, P. Z. S. 1867, p. 383.

Numenius cassini is described as a new species from Middle China. It is smaller than *N. arcuatus*, and is probably "no. 29" of Mr. Cassin's list (cf. Ibis, 1868, p. 445). R. Swinhoe, Ibis, 1867, p. 398.

Pelidna cinchus (æst. & hyem.) and *Calidris arenaria* are figured. J. Gould, B. Gr. Br. pt. xi.

Macrorhamphus scolopaceus and *Ereunetes occidentalis* are figured. D. G. Elliot, B. N. Am. pts. v., vi.

GURNEY jun., J. H. A summary of the Occurrences of the Grey Phalarope in Great Britain during the Autumn of 1866. London: 1867, pp. 24, with a map.

Phalaropus fulicarius was very abundant at the time mentioned (Zool. Rec. iii. p. 109); and the author has collected all the records of its occurrence. 20 August was the earliest, and 8 October the latest date on which the species was observed; and probably not less than 250 birds were killed, chiefly in the south of England. [Cf. Zoologist, S. S. pp. 917-919; Ibis, 1868, p. 101.]

Phalaropus hyperboreus has occurred in Holland, and a very complete account of it is given. J. P. van Wickevoort-Crommelin, Arch. Néerl. 1867, pp. 76-83.

Eggs of *Tryngites rufescens*, *Tringa minutilla*, *Phalaropus fulicarius* and *Totanus flavipes* are figured. A. Newton, P. Z. S. 1867, pp. 165, 166, pl. xv figg. 4, 3, 1 & 5.

CHARADRIIDÆ.

Chionis minor, its egg described, E. L. Layard, Ibis, 1867, pp. 458, 459. In confinement, P. L. Sclater, P. Z. S. 1867, p. 891.

Dromas ardeola breeding on the Dhalak Islands in the Red Sea. Is partially nocturnal in its habits. T. v. Heuglin, J. f. O. 1867, p. 285.

Edicnemus gallarius (head) figured. S. Diggles, Orn. Austral. pt. xi.

Edicnemus superciliaris is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. 30.

Himantopus leucocephalus, its eggs and plumage of the young described. E. P. Ramsay, P. Z. S. 1867, p. 600.

Recurvirostra sinensis is described as a new species from China. R. Swinhoe, Ibis, 1867, pp. 400-402. [Believed to be *R. avocetta*. H. B. Tristram, Ibis, 1868, p. 133.]

"*Charadrius sennaarensis* and *C. trochilus*, P. Würt." (Naumannia, 1857, p. 434), are referred to *C. pecuarius*. T. v. Heuglin, J. f. O. 1867, p. 303.

Ægialitis pecuarius (Temm. Pl. Col. 183) has been commonly confounded with *Æ. kütllitzi*, Reichenb. (Syn. Av. 1063). The former is the "Wire-bird" of St. Helena, and seems to be rare at the Cape. E. L. Layard, Ibis, 1867, pp. 248-252, and G. R. Gray, loc. cit.

Glareola pallasi [sc. *nordmanni*] is figured. A. Fritsch, Vög. Eur. tab. 33. figg. 9, 10.

Glareola orientalis and *G. grillaria* are figured. S. Diggles, Orn. Austral. pt. xiv.

OTIDIDÆ.

Otis tarda, notes on its habits in domestication. W. Hartmann, Zoolog. Garten, 1867, pp. 57-60. Seen in Norfolk, 7 January 1867. T. A. Rising, Zool. S. S. p. 635.

Otis australiana. A specimen examined had no gular pouch. E. P. Ramsay, Ibis, 1867, pp. 134, 135.

Otis arabs occurs on the north-west coast of Africa, not far from Mogador. C. F. Tyrwhitt Drake, Ibis, 1867, p. 429.

"*Eupodotis burchelli*, P. Würt." (Naumannia, 1857, p. 434), is described as being very like *E. ludwigi*, but much larger, and with a long ruff running down the base of the neck, as in *Otis houbara*. T. v. Heuglin, J. f. O. 1867, pp. 301, 302.

GRUIDÆ.

Anthropoides virgo. Notes on its occurrence in Shetland, 14 May, 1863. J. A. Smith, Proc. R. Phys. Soc. Edinb. iii. pp. 177, 178. Figured. C. J. Sundevall, Sv. Fogl. lxxvii. fig. 4.

Grus exelsa, *G. problematica*, and *G. primigenia* are figured. A. Milne-Edwards, Ois. Foss. Fr. pl. lxxv., lxxvi.

PSOPHIIDÆ.

Psophia, the peculiar distribution of the species of this genus (each of which seems to be separated by a river from its neighbours) explained. P. L. Sclater & O. Salvin, P. Z. S. 1867, p. 592.

ARDEIDÆ.

Ardea elegans (Zool. Rec. iii. p. 110) has nothing to do with *A. garzetta*, but belongs to the same group as *A. comata*. G. Hartlaub, P. Z. S. 1867, p. 823.

Ardea purpurea is figured. C. J. Sundevall, Sv. Fogl. lxxvii. fig. 1.

"*Ardea subralloides*, P. Würt." (Naumannia, 1857, p. 434), is *A. ralloides*. T. v. Heuglin, J. f. O. 1867, p. 303.

Herodias garzetta has occurred in Victoria. F. M'Coy, Proc. R. S. Vict. viii. p. 41; Ann. & Mag. N. H. 3rd ser. xx. p. 177.

"*Herodias andamanensis*, Tytler," is described as probably a new species from the Andamans, the young being black from the egg. R. C. Beavan, Ibis, 1867, p. 333.

Nyctiardea gardeni, notes on a colony of this species since wantonly destroyed. W. E. Endicott, Am. Nat. 1867, pp. 343-345.

CICONIIDÆ.

Telargopsis magnus, the remains figured. A. Milne-Edwards, Ois. Foss. Fr. pl. lxxii.

Platalea leucorodia is figured. C. J. Sundevall, Sv. Fogl. pl. lxxvii. fig. 2.

TANTALIDÆ.

Ibis pagana and *Ibidopodia palustris* are figured. A. Milne-Edwards, Ois. Foss. Fr. pls. lxi-xli.

Ibis falcinellus is figured. C. J. Sundevall, Sv. Fogl. pl. lxxvii. fig. 3.

Tantalus longinembris, from Amoy, is described as a new species, remarkable for its long legs. R. Swinhoe, Ibis, 1867, pp. 227-230.

Thresciornis strictipennis, head figured. S. Diggles, Orn. Austral. part xiv.

ANSERES.

PHÆNICOPTERIDÆ.

Four species of the genus *Phænicopterus*, represented by twenty-two mounted skins, are contained in the Leyden Museum. H. Schlegel, Mus. P.-B. *Anseres*, pp. 116-118.

ANATIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 9^{me} Livraison. ANSERES. Leyde: 1867. Royal 8vo, pp. 109-122.

Completes the portion noticed last year (Zool. Rec. iii. p. 111), adding two species to those then included, which brings up the number of species (of real *Anatidæ* as we consider them) contained in the collection to 132, omitting the *Phænicopteridæ*, of which four species are classed by the author among the *Anseres*.

DROSTE, FERD. VON. Der Entenstrich. Journ. für Orn. 1867, pp. 64-70.

— Beobachtungen auf einer Rattgansjagd. Tom. cit. pp. 89-94.

The remarks in the first of these papers and (so far as they are ornithological) in the last chiefly refer to *Bernicla brenta*.

Bernicla leucopsis is figured. J. Gould, B. Gr. Br. part xii.

Chloephaga canagica is figured. D. G. Elliot, B. N. Am. part iii.

Cygnus passmorii (Zool. Rec. ii. pp. 134, 135) is probably identical with *C. buccinator*. The rufous colouring is certainly not diagnostic in this family. J. Murie, P. Z. S. 1867, pp. 8-13.

Cygnus fulconeri and *musicus* (?), their fossil remains (Zool. Rec. ii. p. 134) described and figured. W. K. Parker, Trans. Zool. Soc. vi. pp. 110-124, pl. xxx.

Hybrids between *Cygnus olor* and *C. atratus*. W. Hartmann, Zoolog. Garten, 1867, p. 441.

Hybrids between *Cygnus olor* and *Anser cinereus domesticus*, *Anas boschas* and *A. acuta*, and this last and *A. strepera* noticed. J. P. van Wickevoort-Crommelin, Arch. Néerl. 1867, pp. 447-452.

Dendrocygna eytoni has occurred in Victoria. F. M'Coy, Ann. & Mag. N. H. 3rd ser. xx. p. 177.

Anas blanchardi, *A. consobrina*, *A. natator*, *A. velox*, *A. sansaniensis*, and *A. robusta* are figured and described. A. Milne-Edwards, Ois. Foss. Fr. pp. 129-155, pls. xxi.-xxvi.

Gastornis parisiensis is referred to the neighbourhood of the *Anatideæ*. *Id. op. cit.* pp. 165-177, pls. xxviii., xxix.

Querquedula madagascariensis, *Dafila vinsoni*, and *Anas moreli* are described as new species from Madagascar, but are subsequently identified with *Q. hottentota*, *D. bernieri*, and *A. melleri* (Zool. Rec. i. p. 94). A. Grandidier, R. Z. 1867, pp. 87, 88, 255.

Anas zonorhynchus (Zool. Rec. iii. p. 112) obtained in Japan. H. Whitely, jun., Ibis, 1867, p. 207.

"*Querquedula andamanensis*, Tytler," is described from recollection as probably a new species from the Andamans, brown, with blue wings, somewhat like the South-American *Q. ipecuteri*. R. C. Beavan, Ibis, 1867, p. 333.

Hybrids between *Anas clypeata* ♂ and *A. sponsa* ♀. — Bouillod, Bull. Soc. Imp. d'Acclimat. 1867, pp. 396, 397.

Branta rufina is figured. J. Gould, B. Gr. Br. part xi.

Nyroca australis is figured. S. Diggles, Orn. Austral. part xi.

Eidemia perspicillata occurred in Scilly, autumn of 1865. E. H. Rodd, Journ. R. Inst. Cornw. Oct. 1866, p. 152 (Zool. Rec. ii. p. 135). In Shropshire about the same time. W. Beckwith, Zool. S. S. p. 633. Again in Scilly in 1867, E. H. Rodd, *tom. cit.* p. 1017. Figured, as also *E. fusca*. J. Gould, B. Gr. Brit. part xii.

Lampronetta fischeri is figured. D. G. Elliot, B. N. Am. part v.

Biziura lobata, head figured. S. Diggles, Orn. Austral. part xiii.

LARIDÆ.

Larus argentatus, *L. fuscescens*, and *L. fuscus*, their diagnostic characters given. P. L. Sclater, P. Z. S. 1867, pp. 315, 316.

Larus occidentalis and *L. californicus* are figured. D. G. Elliot, B. N. Am. part vii.

Larus canus, a very full history of the species, as observed by the author in Ireland. H. Blake-Knox, Zool. S. S. pp. 625-681. Figured, J. Gould, B. Gr. Br. part xi.

Rissa tridactyla, minute details of its changes of plumage. H. Blake-Knox, Zool. S. S. pp. 548-558.

Xema sabini, its occurrence in Yorkshire. W. W. Boulton, Zool. S. S. pp. 548, 544. Near Plymouth. J. Gatcombe, *tom. cit.* p. 557; A. Furneaux, p. 608; F. O. Morris, p. 710. In Somerset. M. A. Mathew, *tom. cit.* p. 992.

Larus desmoyersi, *L. elegans*, and *L. totanoides* are figured and described. A. Milne-Edwards, Ois. Foss. Fr. p. 344-360, pls. liv.-lviii.

Hydroornis natator and *Dolichopterus viator*, Aymard, are figured. *Id. op. cit.* pl. lvii.

Sterna nigra, *S. leucoptera*, and *S. cantiaca* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxviii. figs. 1-4.

Sterna fuliginosa, its breeding-place on Ascension described, but the species only mentioned by its local name. C. Collingwood, Zoologist, S. S. pp. 980-983. (*Cf. tom. cit.* p. 1018.)

Sterna melanogaster is figured. J. Gould, B. As. part xix.

Sterna paradisea is figured. Id. B. Gr. Br. part xi.

Sterna lunata and *Anous cinereus* are figured. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. Taf. xiii. fig. 3, 4.

Thalasseus caspius (ex America) is figured. D. G. Elliot, B. N. Am. part iv.

PROCELLARIIDÆ.

Some nineteen species of this family form the subject of very valuable remarks. F. W. Hutton, Ibis, 1867, pp. 185-193.

Diomedea fuliginosa, Gmel., var. *cornicoides*, is the name of an apparently unnoticed variety, observed between lat. 36° 28' S., long. 2° 18' E. [*qu. W. ?*], and lat. 37° 26' S., long. 163° 43' E. Individuals vary a good deal, from being almost white on the back of the neck and shoulders to the normal colour of the species. Id. *ut supra*, p. 186.

Puffinus dichrous is described as a new species from M'Kean's Island, generally resembling *P. assimilis*, but differing in the smoky-brown of the under tail-coverts, with which colour also the smoky-black of the head, lores, and space round the eyes is covered. O. Finsch & G. Hartlaub, Beitr. Faun. Centralpolyn. pp. 244, 245.

Procellaria, sp. ? , a supposed new species, resembling *P. hesitata*, Licht. (*P. cinerea*, Gmel.), observed in about lat. 30° S., long. 16° E. F. W. Hutton, Ibis, 1867, pp. 187, 188.

Procellaria leucorrhœa, Vieill., is the name by which *P. leachi*, auctt., should be known. J. P. van Wickevoort-Crommelin, Arch. Néerl. 1867, pp. 84-87.

"*Thalassidroma leachi*?", a bird so referred, but which cannot possibly have been that species, observed from lat. 14° N., long. 26° W., to lat. 36° S. [Possibly *P. furcata*, Gmelin?] F. W. Hutton, Ibis, 1867, p. 190.

Thalassidroma monorhhis is described as a new species from Middle China, resembling *T. melania*, Bp. (Consp. Av. ii. p. 196), but having "only one opening to its nose." R. Swinhoe, Ibis, 1867, pp. 335-337.

Ossifraga gigantea, *Diomedea chlororhynchus*, *Cymochorea melania*, and *Halocyptena microsoma* (Zool. Rec. i. p. 96) are figured. D. G. Elliot, B. N. Am. parts iv., v., and viii.

Procellaria pelagica is figured. C. J. Sundevall, Sv. Fogl. pl. lxxvii. fig. 5.

PELECANIDÆ.

Pelecanus gracilis, *Graculus miocænus*, *G. littoralis*, *G. intermedius*, *Sula arvensis*, and *S. ronsoni* are figured and described. A. Milne-Edwards, Ois. Foss. Fr. pp. 250-271, pls. xxxviii.-xliv.

Pelagornis miocænus, heretofore referred to the "*Longipennes*," is placed among the "*Totipalmes*," Id. *op. cit.* pp. 278-276, pl. xlv.

Pelecanus conspicillatus is figured. S. Diggles, Orn. Austral. part xii.

Sula sinuacæna (Zool. Rec. ii. p. 186) is referred to *S. fiber* (L.). E. Blyth, Ibis, 1867, p. 178.

Phalacrocorax æolus is described as a new species from Amoy. R. Swinhoe, Ibis, 1867, pp. 395, 396.

Graculus bairdi is figured. D. G. Elliot, B. N. Am. part vi.

COLYMBIDÆ.

The three Old-World species of *Colymbus* are represented in the Leyden Museum by 38 mounted specimens. H. Schlegel, Mus. P.-B. *Urinatores*, pp. 30-33.

Colymboides minutus is described and figured. A. Milne-Edwards, Ois. Foss. Fr. pp. 297-300, pl. liv. figs. 1-14.

Colymbus torquatus [sc. *glacialis*], its osteology and myology described. E. Coues, Mem. Boston Soc. N. H. i. pp. 131-172, pl. 5.

SPHENISCIDÆ.

SCHLEGEL, H. Muséum d'Histoire Naturelle des Pays-Bas. 9^{me} Livraison. URINATORES. Leyde: 1867. Royal 8vo, pp. 6-52.

In this portion of his excellent catalogue the author includes, besides the *Spheniscidæ*, the families *Colymbidæ*, *Podicipidæ*, and *Alcidæ*, under the common name *Urinatores*—an arrangement, we think, not to be followed, and one which, when we take into consideration the fact that he subdivided a preeminently natural family like the *Falconidæ* into no fewer than nine groups, we cannot but regard as illogical. *Heliornis* (including *Podica* and *Podoo*) is also placed here, notwithstanding that its anatomy (Brandt, Beitr. zur Kenntniss der Naturgeschichte der Vögel, St. Petersburg: 1839, pp. 117-122; and Jerdon, B. Ind. iii. p. 721) and habits (Blyth, J. A. S. B. xxviii. p. 415, and Tickell, *tom. cit.* p. 455) have been shown to be essentially those of the *Rallidæ*. The *Spheniscidæ* are represented in the Leyden Museum by 32 specimens, referred to 12 species. [Cf. Ibis, 1868, pp. 110-112.]

PODICIPIDÆ.

Twelve species of this family, all referred to the genus *Podiceps*, are represented in the Leyden Museum by 168 specimens. H. Schlegel, Mus. P.-B. *Urinatores*, pp. 34-48.

Podiceps californicus is figured. D. G. Elliot, B. N. Am. part iii.

ALCIDÆ.

Eighteen species of this family, according to the author's determination of them, are contained in the Leyden Museum, where they are represented by 125 mounted specimens, and referred to three genera, *Alca*, *Simorhynchus*, and *Lunda*. H. Schlegel, Mus. P.-B. *Urinatores*, pp. 13-30.

Alca impennis. Two eggs from M. Demezemaker's collection figured. C. F. Dubois, Arch. Cosmol. 1867, pp. 30-35, pl. 3. [Cf. Ibis, 1868, p. 112.]

Uria grylle has occurred for the first time on record in Norfolk. T. E. Gunn, Zool. S. S. p. 710. Obtained in Japan. H. Whitely, jun., Ibis, 1867, p. 210.

Phaleris tetracula, *Ptychorhamphus aleuticus*, *Brachyrhamphus temminckii*, *Phaleris pusilla*, and *Brachyrhamphus hypoleucus* are figured. D. G. Elliot, B. N. Am. parts iii., iv., vi., and viii.

STRUTHIONES.

STRUTHIONIDÆ.

Dromæus novæ-hollandiæ. On the advantages to be derived from its domestication, as shown by the author's experiments. A. Touchard, Bull. Soc. Imp. d'Acclimat. 1867, pp. 2-7.

Struthio camelus. Notes on its domestication at the Cape of Good Hope. — Héritte, Bull. Soc. Imp. d'Acclimat. 1867, pp. 122-124, and 319-322. At Grenoble. — Bouteille, *tom. cit.* pp. 316-318. At Madrid. A. Graells, *tom. cit.* pp. 477-479.

Casuarus johnsoni is described and figured as a new species from Northern Australia, differing from *C. galeatus* in having the helmet higher than it is long, the skin of the neck thin and smooth, with no ridges behind, and the glands on its side scarcely developed, and the inner claw straight and very sharp. S. Diggles, Orn. Austral. parts xii. and xiii. Further notes on *C. johnsoni*: F. Müller, P. Z. S. 1867, pp. 241, 242. Identical with *C. australis*: P. L. Sclater, *tom. cit.* p. 242; G. Bennett & W. Carron, *tom. cit.* pp. 473, 474. Described from the specimen presented to the Australian Museum. G. Krefft, *tom. cit.* pp. 482, 483.

Casuarus bennetti, an abstract of Captain Jouan's notes on this species (Mém. Soc. Sc. Nat. Cherbourg, ix.). R. Z. 1867, pp. 75, 76.

DINORNITHIDÆ.

Dinornis robustus and *Cnemiornis calcitrans*. (For Prof. Owen's papers on these, see above, under "ANATOMY.")

Dinornis robustus and *D. maximus* (sp. nov.). Notices of them to be subsequently published in the 'Zoological Transactions.' R. Owen, P. Z. S. 1867, p. 891.

Dinornis gigantea. Remarks on an egg containing bones of the embryo. J. Hector (see "OOLOGY").

Dinornis (sp. ?). Remains found at Waingongoro have undergone the process of cooking. G. S. Spencer, Zool. S. S. p. 638.

ÆPYORNITHIDÆ.

Æpyornis maximus. Notice of an egg brought to Toulouse. N. Joly, Comptes Rendus, lrv. (2 Sept.) pp. 422-424. Description of the locality where its remains have been found. A. Grandidier, Comptes Rendus, lrv. (9 Sept.) pp. 476-478. [Cf. R. Z. 1867, p. 338; Ibis, 1868, pp. 65-68.] Observations on its egg, with indications of a smaller species, *Æ. grandidieri*. G. D. Rowley, P. Z. S. 1867, pp. 892-895. [See "OOLOGY."]

AVES

BY

ALFRED NEWTON, M.A., F.L.S., etc.

JUDGING merely from the amount of labour which the compilation of this 'Record' has required, and without actually counting the pages read, the extent of the ornithological literature of 1868 is not less than that of its immediate predecessor, which so far exceeded in bulk anything ever known before: yet it must be confessed that no publication of any very extraordinary merit has made its appearance during the past year. Still the number of works which come up to a good average standard is certainly increasing, and, as the following pages will testify, there seems to be scarcely any civilized country in the world where Ornithology is not being actively studied. The 'Oiseaux Fossiles' of M. Alphonse Milne-Edwards continues to furnish a source of the greatest general interest; the specialist may rejoice in the completion of Dr. Finsch's monograph of Parrots and the commencement of Mr. Sharpe's monograph of Kingfishers; while the progress of science in its highest branches has been successfully promoted by a continuance of Prof. Huxley's and Mr. Parker's researches, and the appearance of Mr. Darwin's 'Animals and Plants under Domestication.' The great illustrated works of Messrs. Gould, Elliot, and Selater and Salvin offer also a strong attraction to those who are best pleased through the eye. In works confined to particular districts, that of Messrs. Schlegel and Pollen on Madagascar, just finished, and that of Herr von Pelzeln on the long-neglected results of Natterer's many years' wanderings in Brazil, deserve especial mention. The greatest novelty, perhaps, which it is our duty to record is Mr. Wallace's ingenious 'Theory of Birds' Nests,' though in truth it was actually promulgated in 1866. There is accordingly no reason to fear that Ornithology is not in a prosperous condition; and, in conclusion, we have as before to return our thanks to many friendly hands for assistance rendered to us in our somewhat wearisome task*.

* We regret to say that the concluding *Hef* of the 'Journal für Ornithologie,' though bearing date "November 1868," was not sent out by its

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HARTLAUB, GUSTAV. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1867. Archiv für Naturg. Jahrg. xxxiv. Band ii. pp. 159–206. Berlin: 1868.

Dr. Hartlaub's *Twenty-second Annual Report* on Ornithology claims, as usual, the first place in our long list of works. We are glad to find that he has abandoned the arrangement he adopted a few years since (*Zool. Record*, iii. p. 44), and has in this Report followed one in defence of which more can be said—at least by ourselves.

CROTCH, G. R. Letter concerning the dates at which the various *livraisons* of Temminck and Laugier's 'Nouveau Recueil de Planches coloriées d'Oiseaux' were published. *Ibis*, 1868, pp. 499, 500.

Of the hundred and two *livraisons* of which this work consisted, the exact date of publication of all but nine (and even of these approximately) is given. With this table before him, the student has no difficulty in ascertaining the date of almost any name applied by Temminck; for each sheet bears with its "signature" the number of the *livraison* in which it appeared. The utility of this table is self-evident, particularly as it turns out there was considerable irregularity in the publication: thus *Livr.* 41 was published 27 Dec. 1823, and *Livr.* 43, 28 Feb. 1824, while *Livr.* 42 did not appear till 26 Feb. 1825!

GURNEY, J. H. Notes on Mr. Layard's 'Birds of South Africa.' [See "ETHIOPIAN REGION."]

KÖNIG-WARTHAUSEN, RICHARD. Zur älteren Literatur. *Journ. für Orn.* 1868, pp. 246–248.

A few extracts from the 'Museum Wormianum' (*Lugd. Batav.*: 1655).

NEWTON, ALFRED. Additional Notes on Mr. Layard's 'Birds of South Africa.' [See "ETHIOPIAN REGION."]

Includes also notes on Sir Andrew Smith's 'Report of the Expedition for Exploring Central Africa,' and papers in the 'South-African Quarterly Journal.' Further notes on these last, and also on his 'Catalogue of the South-African Museum,' are also given (*Ibis*, 1868, pp. 502, 503).

English publishers till the middle of May 1869; so that, with every disposition to strain a point in its favour, we have felt ourselves compelled to exclude its contents from the present Record. The 'Proceedings' of the Philadelphia Academy we have not been able to see entire; and for a knowledge of such of the papers included in them as we have noticed we are indebted to the kindness of their authors.

SALVADORI, TOMMASO. Studio intorno al lavori ornitologici del Professore Filippo de Filippi. Atti della R. Accad. Sc. di Torino, 1868, pp. 257-296.

A careful abstract of, and commentary on, the ornithological labours of the deceased naturalist, including identifications, more or less precise, of several species (particularly of the families *Picidæ*, *Formicariidæ*, *Cærebidæ*, *Timaliidæ*, *Laniidæ*, *Campephagidæ*, *Turdidæ*, and *Sylviidæ*) described by him as new. A species of *Alaudidæ* is for the first time separated as new.

SUNDEVALL, C. J. Les Oiseaux d'Afrique de Levaillant, critique de cet ouvrage. Rev. et Mag. de Zool. 1868, pp. 40-43, 86-90, 114-117, 262-267.

The conclusion of M. Olph-Galliard's translation before noticed (Zool. Record, ii. p. 55, iii. p. 45, iv. p. 44). A considerable number of important corrections are appended to the last paper (pp. 265-267).

THE GENERAL SUBJECT.

ALTUM, B. Der Vogel und sein Leben. Münster: 1868. Imp. 8vo, pp. 240.

We have not seen this work; but from the mention made of it, in anticipation, by Dr. Hartlaub (Bericht u. s. w. pp. 164, 165) we imagine that it is as much of a psychological as of an ornithological nature. [Cf. F. C. Noll, Zool. Garten, 1868, p. 159; A. & K. Müller, Journ. für Orn. 1868, pp. 265-284, 340-352.]

BREHM, A. E. Das Thierleben—Abtheilung Vögel. Hildburg-hausen: 1865-67. 2nd ed. ("Das Leben der Vögel.") Glogau: 1867. 8vo, pp. 650.

A popularly written work, with, in some cases, pretty woodcuts. The three plates of eggs are by Bädcker, and are good examples of that oologist's style. [Cf. Journ. für Orn. 1868, pp. 58-65.]

CARUS, J. VICTOR. Handbuch der Zoologie. Erster Band. Wirbelthiere, I. Hälfte. Leipzig: 1868. 8vo, pp. 432.

We can only indicate the systematic arrangement adopted by the author. He divides the class *Aves* (pp. 191-368) into Orders and Families, as follows:—

- I. PSITTACI: (1) *Plectolophinæ*, (2) *Sittacinæ*, (3) *Psittacinæ*, (4) *Trichoglossinæ*, (5) *Strigopinæ*.
- II. COCCYGOMORPHÆ: (1) *Rhamphastidæ*, (2) *Capitonidæ*, (3) *Galbulidæ*, (4) *Trogonidæ*, (5) *Bucconidæ*, (6) *Cuculidæ*, (7) *Musophagidæ*, (8) *Coliidæ*, (9) *Bucerotidæ*, (10) *Alcedinidæ*, (11) *Meropidæ*, (12) *Upupidæ*, (13) *Coraciidæ*, (14) *Momotidæ*.

III. PICI: (1) *Jyngidæ*, (2) *Picumnidæ*, (3) *Picidæ*.

IV. MACROCHIRÆ: (1) *Caprimulgidæ*, (2) *Cypselidæ*, (3) *Trochilidæ*.

V. PASSERINÆ: (Suborder i.) Clamatores, (1) *Phytotomidæ*, (2) *Cotingidæ*, (3) *Tyrannidæ*, (4) *Anabatidæ*, (5) *Pteroptochidæ*, (6) *Menuridæ*, (7) *Formicariidæ*, (8) *Pittidæ*; (Suborder ii.) Oscines, (1) *Ploceidæ*, (2) *Fringillidæ*, (3) *Tanagridæ*, (4) *Mniotiltidæ*, (5) *Motacillidæ*, (6) *Alaudidæ*, (7) *Sylviidæ*, (8) *Maluridæ*, (9) *Turdidæ*, (10) *Cærebidæ*, (11) *Meliphagidæ*, (12) *Nectariniidæ*, (13) *Hirundinidæ*, (14) *Ampelidæ*, (15) *Muscicapidæ*, (16) *Campephagidæ*, (17) *Dicruridæ*, (18) *Oriolidæ*, (19) *Laniidæ*, (20) *Timaliidæ*, (21) *Troglodytidæ*, (22) *Certhiidæ*, (23) *Epimachidæ*, (24) *Paridæ*, (25) *Icteridæ*, (26) *Sturnidæ*, (27) *Paradisidæ*, (28) *Corvidæ*.

VI. RAPTATORES: (Tribe i.) Strigomorphæ, (1) *Strigidæ*; (Tribe ii.) Grypomorphæ, (1) *Cathartidæ*; (Tribe iii.) Aetomorphæ, (1) *Gypætidæ*, (2) *Vulturidæ*, (3) *Gypohieracidæ*, (4) *Falconidæ*; (Tribe iv.) Cestuchomorphæ, (1) *Gypogeranidæ*.

VII. GYRANTES: (Tribe i.) Inepti, (1) *Dididæ*; (Tribe ii.) Pleiodi [*lege* Pliodi], (1) *Didunculidæ*; (Tribe iii.) Columbæ, (1) *Treronidæ*, (2) *Columbidæ*, (3) *Calenadidæ*, (4) *Gouridæ*.

VIII. RASORES: (1) *Pteroclidæ*, (2) *Turnicidæ*, (3) *Tetraonidæ*, (4) *Phasianidæ*, (5) *Megapodiidæ*, (6) *Cracidæ*, (7) *Opisthocomidæ*.

IX. BREVIPENNES: (1) *Struthionidæ*, (2) *Rheidæ*, (3) *Casuarinæ*, (4) *Dinornithidæ*, (5) *Apterygidæ*.

X. GRALLÆ: (1) *Scolopacidæ*, (2) *Charadriidæ*, (3) *Chionididæ*, (4) *Parridæ*, (5) *Otididæ*, (6) *Dicholophidæ*, (7) *Rallidæ*, (8) *Psophiidæ*, (9) *Rhinocetidæ*, (10) *Gruvidæ*.

XI. CICONIÆ: (1) *Ardeidæ*, (2) *Scopidæ*, (3) *Ciconiidæ*, (4) *Hemiglottides*.

XII. LAMELLIROSTRES: (Suborder i.) Odontoglossæ, (1) *Phænicopteridæ*; (Suborder ii.) Chenomorphæ, (1) *Palamedeidæ*, (2) *Cygnidæ*, (3) *Anseridæ*, (4) *Plectropteridæ*, (5) *Tadornidæ*, (6) *Anatidæ*, (7) *Fuligulidæ*, (8) *Erismaturidæ*, (9) *Mergidæ*.

XIII. STEGANOPODES: (1) *Pelecanidæ*, (2) *Sulidæ*, (3) *Tachypetidæ*, (4) *Phalacrocoracidæ*, (5) *Plotidæ*, (6) *Phaethontidæ*.

XIV. LONGIPENNES: (1) *Procellariidæ*, (2) *Laridæ*.

XV. URINATORES: (1) *Colymbidæ*, (2) *Alcidæ*, (3) *Spheniscidæ*.

XVI. SAURURÆ: (1) *Archornithidæ*.

Most of the characters used in distinguishing these groups are external. The families are frequently subdivided into

subfamilies; and though personally we do not at all agree with the learned author, it is not to be denied that this work will be found very useful to the general student.

COLLINGWOOD, CUTHBERT. *Rambles of a Naturalist on the Shores and Waters of the China Sea, &c.* London: 1868. 8vo, pp. 445.

The author proceeded by the overland route, and, beside China, visited Formosa, Borneo, and Singapore, returning by the Cape of Good Hope, St. Helena, Ascension, and the Azores. His attention was chiefly turned to the lower animals, and the work contains few ornithological notices. [*Cf. Ibis*, 1868, pp. 473, 474; 1869, pp. .]

CRETÉ DE PALLUEL, A. *Mémoire sur les Oiseaux acridiphages ou mangeurs de Sauterelles.* Bull. de la Soc. Impér. zool. d'Acclimatation, 1868, pp. 257-267. (*Cf. tom. cit.* pp. 607-610.)

The species chiefly dwelt on belong to *Sturnidæ*; but many others of different families are briefly noticed, and their utility in destroying locusts and grasshoppers especially mentioned.

DARWIN, CHARLES. *The Variation of Animals and Plants under Domestication.* 2 vols. 8vo, pp. 411 and 486. London: 1868.

The author's object is to give, under the head of each species, such facts as he has collected, showing the amount of variation it has undergone while under man's dominion. In one case only, that of the tame Pigeon, has he fully described the chief races, their history, the amount and nature of their differences, and the probable steps by which they have been formed. Tame Fowls and Ducks are also considered with considerable fulness. Of course this information is made to bear upon Mr. Darwin's well known theory as to the origin of species. What may be called the special part of this work occupies nearly the whole of the first volume; the remainder, including the consideration of the remarkable "hypothesis of Pangenesis," promulgated by the author, hardly comes within the range of a 'Record' like the present, and we naturally limit ourselves to an abstract of the principal results given by him with respect to the *Fringillidæ*, *Columbidæ*, *Phasianidæ*, and *Anatidæ*, which will be found under those heads respectively, only remarking that many most interesting facts are to be found in the second volume of this work, and premising, as a general statement, that he believes that the various domesticated animals of those families have each sprung from a single species [*vide supra* "MAMMALIA," p. 2]. [*Cf. Ibis*, 1869, pp. 218, 219; *Am. Nat.* 1868, pp. 547-553; *F. C. Noll, Zool. Garten*, 1868, pp. 351, 352.]

GIGLIOLI, H. H. *Letter on the Voyage of the 'Magenta.'* *Ibis*, 1868, pp. 497-499.
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Gives an outline of the course sailed, and mentions a few objects of interest procured. The ornithology of the voyage is to be published by the author in conjunction with Dr. Salvadori.

GOULD, JOHN. On four New Species of Birds. Proc. Zool. Soc. 1868, pp. 218-221.

[See *Rhamphastidæ*, *Timaliidæ*, *Sturnidæ*, and *Podicipidæ*.]

HUXLEY, T. H. On the Animals which are most nearly intermediate between Birds and Reptiles. Proc. Roy. Instit. Gr. Britain, Feb. 7, 1868, pp. 10. Reprinted Ann. & Mag. N. H. 4th ser. ii. pp. 66-75.

The passage between Reptiles and Birds, on the principle of Evolution which the author adopts, is not by way of the Pterodactyls, but rather through the *Dinosauria*, and *Compsognathus* is the nearest approximation to the "missing link,"—a conclusion much the same as that of Prof. Cope (Zool. Rec. iv. p. 45).

——. Letter on the Classification of Birds. Ibis, 1868, pp. 357-362.

In reply to some remarks (*vide infrà*, NEWTON, ALFRED) on his paper noticed last year (Zool. Rec. iv. pp. 46-49). In every group there are two kinds of characters, (1) those which are *diagnostic* and (2) those which are *common* to others. The diagnosis may also rest not merely on a particular character confined to the group, but on a peculiar combination of characters; and the value of characters for classification must be argued *à posteriori*. In the case of the *Schizognathæ*, no other common and yet distinctive character, save that drawn from the palatal structure, can be assigned; and as much could probably be said for the author's other suborders. All classification by logical categories is, however, more or less artificial—the goal is that of a genetic classification. Classification by gradation is another stage in the same progress, and must not be confounded with the ultimate result, though it probably represents a true genetic classification more nearly than any other arrangement can do. The *Tinamomorphæ* among the *Carinata* approach nearest to the *Ratitæ*; and the great majority of the *Carinata* fall into one or other of four series, which diverge directly or indirectly from the *Tinamomorphæ*.

These series are then indicated in a tabular form; but the results are more fully given in the paper next to be noticed.

——. On the Classification and Distribution of the *Alectoromorphæ* and *Heteromorphæ*. Proc. Zool. Soc. 1868, pp. 294-319, with Map.

Though the title of this paper would lead the reader to suppose it ought more properly to come into our special part, a very slight acquaintance with its contents will show that we are justified in treating a portion of it as belonging to the General Subject.

Professedly the threefold object of this interesting treatise is to discuss:—1st, the proper limits of the group *Alectoromorpha* and its subdivisions; 2ndly, the relations of sundry outlying forms, commonly regarded as Gallinaceous birds, to the *Alectoromorpha* and adjacent groups; and 3rdly, the geographical distribution of the *Alectoromorpha* in relation to geographical distribution generally. Leaving the details of the first two divisions to be given under our heading of GALLINÆ, we pass to the third, wherein the author brings together a long string of most important facts bearing on the whole question of zoogeography. Taking examples, not only from the class *Aves* generally, but also from some of the *Mammalia*, he shows that the Nearctic Region of Mr. Sclater is really far more closely allied to the Palæarctic than to the Neotropical—and further that, as Dr. Pucheran believes (Zool. Rec. iii. p. 47), the faunas of the Indian and Ethiopian Regions are much more nearly connected with one another and with that of the Palæarctic than with that of the Australian Region. Thus the great frontier line is latitudinal rather than longitudinal, and accordingly we ought rather to speak of an *Arctogæa* and a *Notogæa* than (with Mr. Sclater) of a *Neogæa* and a *Palæogæa* as the primary divisional areas.

In regard to the secondary divisions, he does not so much object to the principles of Mr. Sclater, finding them to answer in great measure to those suggested by the distribution of the *Alectoromorpha*; but Prof. Huxley thinks it would be convenient to recognize a northern circumpolar "province" as distinct from the Nearctic and Palæarctic Regions*; and, more than this, he looks upon the Australian Region ("Australasia") as being so very different, not only from his "*Arctogæa*," but also from the Neotropical ("*Austro-Columbia*"), that a good case might be made out for regarding it as a primary division. Still further, he is disposed to give a similar distinction to New Zealand; and thus the earth's surface, if this view were admitted, would be divided into four primary Regions:—I. *Arctogæa*; II. *Austro-Columbia*; III. *Australasia*; and IV. *New Zealand*. Some further remarks of very great interest follow: it will perhaps be enough here to mention that their upshot is to show the probability of the first three of the Regions just named having been as distinct in the early Tertiary epoch as they are now.

LEWIS, GRACE ANNA. Natural History of Birds. Lectures on Ornithology. Part i. Philadelphia: 1868. 12mo, pp. 32.

* Herr von Pelzeln has wished to establish an "*Antarctic Region*" (Zool. Rec. ii. pp. 57, 58), and Prof. Baird a "*West-Indian Region*" (*op. cit.* iii. p. 59). Neither of these suggestions, any more than that above given of Prof. Huxley's, seems to us to be at present fully justifiable.

This work we have not seen. It is well spoken of by a reviewer (*American Naturalist*, 1868, pp. 554, 555).

MÄKLIN, F. W. Vetenskapliga Grunder för Bestämmandet af Fogelarternas Ordningsföljd inom släkten och grupper. Helsingfors: 1867. 8vo, pp. 131.

On the proportion between the dimensions of various parts of the skeleton the capability of flight depends; and this the author considers to be the surest ground for the systematic arrangement of birds. If the power of flight or, perhaps more correctly, the disposition for a more or less remarkable flight, be represented by v , the length of the humerus by h , that of all the wing-bones by a , and that of the trunk by t , then $v = \frac{a-h}{h} \cdot \frac{a}{t}$.

The dimensions of 102 specimens, belonging to upwards of 90 species, are minutely given to this end, and a list of the results obtained given. Thus *Struthio camelus* stands with 0.79 as what we may call its "figure of merit;" *Gallus domesticus* with 1.67, and so on till that of *Hirundo rustica* is found to be 3.88, and *Cypselus apus* 5.76. A good many remarks are also made on the sternal apparatus of birds.

MILNE-EDWARDS, A. Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux Fossiles de la France. Livr. 18-25. Paris: 1868. 4to, plates.

With the twenty-second part, the text of the first volume of this most important work is brought to a close. In includes, beside the groups mentioned in our notice last year (*Zool. Rec.* iv. pp. 49-50), those of the "Totanides" (*Scolopacidae* and *Charadriidae*) and "Ciconides" (*Ciconiidae* and *Tantalidae*), the former containing a new genus, and the latter two. *Hydrornis natator* and *Dolichopterus viator* (*tom. cit.* p. 122) are spoken of as "Palmipèdes" of uncertain position, the first having affinities both with the "Lamellirostres" and the "Longipennes." The second volume begins with the "Gruides" (*Gruidae*), with three new species, and goes on with "Phœnicoptérides" (*Phœnicopteridae*), with three new genera and eight new species (!), and the "Ardeïdes" (*Ardeidae*), with one new species. The "Rallides," of which a considerable number of the remains of extinct species are figured, will apparently follow; but not having as yet received any of the letterpress relating to them, we at present suspend any notice of this group.

The method of treatment which we described last year is still pursued, and the work deserves all that we can say in its praise. The new species will be found named in our special part. [*Cf. Ibis*, 1868, pp. 220-222; 1869, pp. 218-220.]

NEWMAN, EDWARD. The Death of Species. Zoologist, Sec. Ser. pp. 1345-1358, 1385-1395.

As some of the statements on which the opinions advanced are founded seem to have been gathered from authorities having very little acquaintance with the facts, we may hold ourselves excused from entering further upon the philosophy of this series of papers (which is being yet continued) than to say that the author is opposed to any theory of Evolution, and especially to Mr. Darwin's. The instances drawn from the Class of birds are eight in number (pp. 1352-1355), and one accidentally erroneous statement is subsequently corrected (p. 1483).

NEWTON, ALFRED. Remarks on Prof. Huxley's proposed Classification of Birds. *Ibis*, 1868, pp. 85-96.

After giving a brief sketch of Prof. Huxley's arrangement (*Zool. Rec.* iv. pp. 46-49), the opinion is expressed that a scheme of classification composed solely with reference to one character will never lead to a true comprehension of the system of Nature. The principles laid down by him are shown to consist of two kinds of "characters," those which are diagnostic and those which are not; and those drawn from the structure of the palatal bones prove, on investigation, to come into the category last named, while many of the former are of the other kind. Other zoologists, proceeding by other routes, have arrived at some of the same conclusions as he has—particularly as to the affinity of the *Charadriidæ* and *Scolopacidæ* [*Limicolæ*, Nitzsch] and allied groups to the *Laridæ*, thus forming his "suborder" *Schizognathæ*; but *Dicholophus* and *Crazæ* seem to form exceptions to the very characteristic from which that is named. Similar exceptions occur among the *Desmognathæ* and *Ægithognathæ*, and also among the further subdivisions, as *Grus antigone* in the *Geranomorphæ* and *Procellaria gigantea* in the *Cecomorphæ*. Prof. Huxley's division of the *Aetomorphæ* (*Accipitres*) meets with more approval. [*Cf. Journ. Anat. & Phys.*, May 1868, pp. 390, 391. *Vide supra*, HUXLEY, T. H.]

OWEN, RICHARD. On the Anatomy of Vertebrates. Vol. III. London: 1868.

Though this volume is devoted to a consideration of Mammalia, it is necessary for us to notice it here, on account of the systematic views expressed by the author in the "Zoological Index" appended to it (pp. 847-849). These are not quite the same as those which were manifested in the preceding volume (*Zool. Rec.* iii. pp. 67, 68). The Class *Aves* is divided into three great groups:—(A) ALTRICES, including the Orders *Raptores*, *Scansores*, *Volitores*, and *Cantores*; (B) PRÆCOCES, comprising the Orders *Rasores*, *Cursores*, *Grallatores*, and *Natatores*; and (C) UROIONI [potius *Uræoni*], of which *Archæopteryx* is the sole representative. Thus it will be seen that the *Cursores*, which was before declared (vol. ii. p. 12) not to be a natural Order, is again restored; but it is said (iii. p. 848) to be synonymous

with "*Struthionidæ*," and the genera *Rhynchotis* and *Tinamus* are comprehended in it, while *Notornis* is referred to *Grallatores*. A place is also assigned to *Archæopteryx* for the first time by Prof. Owen.

PETTIGREW, J. B. On the Mechanical Appliances by which Flight is obtained in the Animal Kingdom. Trans. Linn. Soc. xxvi. pp. 197-277, pls. xii.-xv.

We last year mentioned (Zool. Rec. iv. p. 50) the abstract of this paper, the subject of which hardly comes within our province. The illustrations are very good. (Cf. *Ibis*, 1868, p. 476.)

SCLATER, P. L., and SALVIN, OSBERT. Exotic Ornithology. Parts V.-VIII. London: 1868. Imp. 4to, pp. 65-128, pls. xxxiii.-lxiv.

The four parts of this work which have been published during the last year are on the same plan as those which preceded them (Zool. Rec. iii. p. 48, iv. p. 51). The species figured are all American, and will be mentioned in our notice of the families to which they belong. Complete lists of the New-World species of *Scops*, *Chatura*, and *Laterivallus* are given. (Cf. *Ibis*, 1868, pp. 336, 337; 1869, pp. 109, 110.)

WAGNER, MORITZ. Ueber die Darwin'sche Theorie in Bezug auf die geographische Verbreitung der Organismen. Sitzungsber. k. bayer. Akad. Wissensch. 1868, i. pp. 359-395.

——. Die Darwin'sche Theorie und das Migrationsgesetz der Organismen. Leipzig: 1868. 8vo, pp. 62.

The second of these papers is a separate reprint of the first, with the addition of a few unimportant details. The author does not use the word "migration" in the special sense commonly ascribed to it by ornithologists, but seems to mean by it any shifting of abode [see "*MAMMALIA*," p. 2]. Such a "migration" he contends is necessary before Natural Selection can act; but this, as it seems to us, does not at all invalidate the theory of Mr. Darwin, who, so far as we know, has always maintained the power of Natural Selection to take advantage of any change of circumstances whatsoever, and has never professed that the process can act without opportunity. The ornithological examples cited by Prof. Wagner are not numerous (pp. 13, 31, 43) and do not call for any special remark.

PALÆARCTIC REGION.

ALTUM, B. Eine ornithologische Morgenexcursion. Journ. für Orn. 1868, pp. 206-211. [See also HOMEYER, EUG. F. VON.]

This has chiefly to do with the time at which various species begin their song or cries. [Cf. Jenyns's '*Observations in Natural History*' (London: 1846), pp. 94-102.]

BARNARD, M. R. (See PAIKULL, C. W.)

BETTA, EDOARDO DE. Sulla straordinaria od accidentale Comparsa di alcune specie di Uccelli nelle Provincie Venete e sulle cause rispettive Note ed Osservazioni. Venezia: 1865. 8vo, pp. 32. (From Atti dell' Istituto Veneto, 3rd ser. vol. x.)

The occurrence of a good many stray birds in Venetia is enumerated, and the appearance of *Syrnhaptes paradoxus* in 1863-64 especially dwelt upon.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia ad illustrazione della raccolta ornitologica dei fratelli ERCOLE ed ERNESTO TURATI con tavole litografate e colorate prese dal vero da O. DRESSLER. Milano: 1867-68. Folio. Vol. i. fascicoli xvi.-xxvi., Vol. ii. fascicoli i.-ix.

As the above shows, great progress has been made in this work since we last noticed it (Zool. Rec. iv. p. 52); and it quite sustains the character of it then given. A list of the species whose young and eggs are figured, will be found under the heads "NEOSSOLOGY" and "OOLOGY" respectively. [Cf. C. Bolle, J. f. O. 1868, pp. 263-265.]

BRUHIN, P. TH. A. Der "hängende Stein" bei Bludenz—seine Ornithologie und Flora. Zeitschr. für die gesammte Naturwissenschaft. 1868, pp. 301-304.

The ornithological portion (p. 302) is very brief and of local interest only.

COLLETT, ROBERT. Norges Fugle, og deres geographiske Udbredelse i Landet. Christiania: 1868, pp. 80. (Separately printed from the Vidensk.-Selsk. Forhandlinger for 1868.)

A good list of the Birds of Norway, with brief notes showing when and where they occur in that country. It includes 248 species. [Cf. Ibis, 1869, pp. 225-227.]

COPE, EDWARD D. The Birds of Palestine and Panama compared. [See "NEOTROPICAL REGION."]

DROSTE, FERDINAND VON. Zweiter Nachtrag zu dem Verzeichniss der Vögel Borkum's. Journ. für Orn. 1868, pp. 37-46.

In continuation of the observations before noticed (Zool. Rec. ii. p. 62, iii. p. 49). Of little more than local interest.

DYBOWSKI, B., and PARREX, A. Verzeichniss der während der Jahre 1866 und 1867 im Gebiete der Mineralwässer in Daurien beobachteten Vögel. Journ. für Orn. 1868, pp. 330-339.

A list of the birds of this interesting locality, which lies beyond the Jablonnoi Mountains, forming the watershed between the Arctic and the Pacific Oceans. Darasun is situated on the river Tura (the waters of which flow into the Ingoda, and

finally into the Amoor) in about lat. $51^{\circ} 10' N.$ and $113^{\circ} E.$ To the north and west lie the spurs of the Jablonnoi chain, to the south and east the hilly Aginer steppe. The forests are chiefly composed of larch, with firs in the valleys and stout pines on the mountains. One hundred and nine-three species are enumerated, some of them of great rarity; but the notes respecting them are unfortunately meagre, and nearly all were met with by Herr Radde (Reisen im Süden von Ost-Sibirien, Bd. ii.), *Turdus pelios*, Bp. [!], being perhaps the chief exception. The paper concludes with a table showing the number of eggs laid by a good many of the birds whose nests were found by the authors.

GIEBEL, C. G. Vogelschutzbuch. Die nützlichen Vögel unserer Aecker, Wiesen, Gärten und Wälder. Zweiter unveränderter Abdruck. Berlin: 1868.

This work we have not seen. The writer of a short notice (Zeitschr. gesamt. Naturwissensch. 1868, p. 338) speaks well of it.

GOULD, JOHN. The Birds of Great Britain. Parts xiii. (August 1, 1868) and xiv. (September 1, 1868.)

The customary two parts of this magnificent work. The species figured are named under the genera to which they belong.

HINTZ I., W. Ornithologischer Jahresbericht u. s. w. in der Umgegend von Schlosskämpen bei Cöslin in Pommern. Journ. für Orn. 1868, pp. 289-304, 389-404.

In continuation of the Reports before noticed (Zool. Rec. i. p. 43, ii. p. 64, iii. p. 51, and iv. p. 54); but the first portion only appeared within the year 1868.

HOLMGREN, AUG. EMIL. Handbok i Zoologi för Landtbrukbare, Skogshushållare, Fiskeriidare och Jägare. II. Delen. Skandinavians Foglar. Senare Häftet. I. Roffuglar och Duffoglar. Stockholm: 1866. pp. 435-609.

A continuation of the work noticed last year (Zool. Rec. iv. p. 54), giving an account of the Scandinavian *Accipitres* and *Columbæ*. The plates at the end are those used in Ström's 'Svenska Foglarna' (Stockholm: 1839). The woodcuts, for aught we know, may be new.

HOLTZ, LUDWIG. Brutvögel der Insel Gottland. Journ. für Orn. 1868, pp. 100-131. [See "Oology."]

——. Die Insel Gottska-Sandö. *Tom. cit.* pp. 145-166. With a Map.

This island lies in the Baltic, north-east of that of Gothland. After a description of the island, and of its character, there follows a list of 47 species observed, of which 20 breed there, while the remainder are birds of passage.

HOMEYER, ALEXANDER VON. Ueber irreguläre Wanderungen und Haushalt einiger Vögel Europa's. *Zoolog. Garten*, 1867, pp. 121-127, 161-167, 199-204, 232-239, 269-273, 336-341, 401-405.

An attempt to throw light on a very difficult and most interesting subject, and to discover if there be any law which guides the apparently "irregular" movements of birds. These movements may be classed in three categories—those of real immigrants or species taking up their abode in localities to which they had been strangers, those of species which appear suddenly in great numbers, and those of species which appear singly. The species of which most is said are *Vultur fulvus* and *V. cinereus*, the northern *Strigidae*, *Ampelis garrulus*, *Turdus pilaris* and *T. iliacus*, *Sylvia tithys*, *Fringilla serinus*, the species of *Loxia*, *Emberiza hortulana*, *Alauda cristata* and *A. alpestris*, *Nucifraga caryocatactes*, *Syrnhaptes paradoxus*, *Nycticorax griseus*, *Anas clangula*, and *Carbo cormoranus*. This series of articles has called forth several other communications to the same journal bearing on some of the points disputed by the author.

HOMEYER, EUGEN VON. Bemerkungen über einige europäische Drosseln. *Journ. für Orn.* 1868, pp. 170-179. [See *Turdidae*.]

——. Beiträge zur Kenntniss der Vögel Ostsibiriens und des Amurlandes. *Tom. cit.* pp. 197-206, 248-259.

A digest, apparently very well executed, of the ornithological portions of the works of Von Middendorff (*Sibirische Reise*, Band ii. Th. 2, 1853), Von Schrenck (*Reisen im Amurlande*, Band i., 1860), and Radde (*Reisen im Süden von Ost-Sibirien*—*Die Festlands Orn.*, 1863), which, though almost universally known, are not very generally accessible. The two papers (all that we have as yet seen) only treat of 39 species; there is accordingly much more to follow.

HOMEYER, EUG. F. VON. Herrn Dr. Altum's Morgenexcursion und die Angaben Naumann's. *Tom. cit.* pp. 354-356.

A criticism on the paper already noticed (*suprà*, p. 38).

HOYNINGEN-HUENE, ALEXANDER BARON. Ornithologische Mittheilungen aus Estland. *Journ. für Orn.* 1868, pp. 235-238.

Notes only on the quarrelsomeness of *Rubecula sylvestris* and the breeding of *Linaria rubra* and *Pyrrhula vulgaris* in confinement.

KENNEDY, A. W. M. CLARK. The Birds of Berkshire and Buckinghamshire: a contribution to the Natural History of the two counties. Eton and London: 1868. Sm. 8vo, pp. 232.

The work of a boy of sixteen, of whom in due time we expect to hear more. (Cf. *Ibis*, 1868, pp. 337-339.)

MARCHAND, A. Catalogue des Oiseaux observés dans le département d'Eure-et-Loir. Rev. et Mag. de Zool. 1868, pp. 50-53.

In continuation of the series of papers before noticed (Zool. Rec. iv. p. 55). Two hundred and twenty-seven species are enumerated.

MIDDENDORFF, A. VON. Sibirische Reise. Band iv. Uebersicht der Natur Nord- und Ost-Sibiriens. Th. 2. Erste Lieferung. Die Thierwelt Sibiriens. St. Petersburg: 1867. 4to, pp. 785-1094.

This publication treats of the following matters:—the Poverty of the fauna of Siberia and its similarity to and accordance with that of Europe (p. 785), the Siberian Vertebrates noticed by the author in his travels (p. 789), the extent of ideas as to species (p. 790), the variation of Siberian animals (p. 798), the unity of the geographical range of each species (p. 822), the foundations for a history of the distribution of Siberian animals, including Extinction (p. 829) and the preservation of animals requiring it (p. 875), the Hyperboreal Fauna (p. 910) and Birds especially (pp. 964-969), the Animals of Circumboreal Siberia (p. 976), Birds of the Circumboreal Tundras (pp. 987, 988) and Forests (pp. 1007-1009), Alpine animals compared with those of the High North (p. 1009), the birds especially and the difficulty of deciding to which category certain species belong (pp. 1015-1017), Polar and Boreal animals (p. 1017), Palæoboreal animals (p. 1026), Advance of the circuit of Distribution (p. 1052), with a Retrospect of the whole subject (p. 1066), concluded by some additions (p. 1079).

It is quite impossible for us here to indicate more particularly the very varied contents of this treatise, which seems to be admirably executed. Countless facts are brought together from all kinds of sources; but it may be observed that they are not always taken from the newest works on the subject.

PAIJKULL, C. W. A Summer in Iceland. Translated by M. R. BARNARD. London: 1868. 8vo, pp. 364.

The original, published in Swedish, contains nothing ornithological except a moderate woodcut of *Alca impennis*. The translator adds a footnote (p. 8) containing an exceedingly doubtful assertion, and an "Appendix," including, among other things, a List of Birds found in Iceland (pp. 353, 354). This is transcribed from the list given by Dr. Robert in 1851 (Voyage en Islande et au Greenland. Zoologie et Médecine, pp. 161-166), which is founded upon Gliemann's (Geogr. Besch. v. Islande. Altona: 1824, p. 150-170), and is utterly worthless; but the translator only is to blame. [Cf. Ibis, 1869, pp. 111, 112.]

PARRIS, A. [See DYBOWSKI, B.]

QUISTORP, —. Ueber den Zug des Kranichs und das Erscheinen anderer Zugvögel in Neu-Vorpommern. Journ. für Orn. 1868, pp. 259–263.

The observations with regard to *Grus cinerea* are of some general value, but those respecting other birds of passage chiefly of local interest.

SABANÄEFF, LEONIDA. Materialöi dlia Faunöi Jaroslafski guberni. Bull. Soc. Imp. Nat. de Moscou, xli. 1868, pp. 234–279, 487–524.

The object of these two papers, as their title indicates, is to give materials for a fauna of the Government of Jaroslav, one of the central provinces of Russia in Europe. The author begins by giving a sketch of the nature of the country, and indicates the various districts in which investigations have been made, as well as the species there observed—in the case of the birds, mentioning whether they are migratory or resident, and, if the former, whether they remain to breed. Each district has a chapter devoted to it—the Jamsk forests (p. 253), the islands of the Volga and the meadows inundated by its spring-floods (p. 262), the banks of the same river (p. 267), the Warelowo morass (p. 487), Leenina (p. 503), and the Poluschkinoi forests and Zalorodnom gardens (p. 515). Very many of the observations seem to be of interest: *Surnia nyctea*, *Loxia leucoptera*, and *Caryocatactes guttatus* breed in the Government, and *Accentor montanellus* is found in the forests of Jamsk. It is to be regretted that these papers (which are not yet concluded) have not been published in a language which would render them more serviceable to naturalists in general*.

SMITH, ALFRED CHARLES. A Sketch of the Birds of Portugal. Ibis, 1868, pp. 428–460.

This paper contains much more than is to be gathered from its title, and is in fact a very well-concocted synopsis of Portuguese Ornithology. The author acknowledges his indebtedness to Prof. Barboza du Bocage for much assistance. After a graphic outline of the physical features of the country, a list of the species (193 in number) which occur there is given, wherein are distinguished those met with by the author alive and wild, those obtained by him in the flesh from the markets, and those resting on the authority of Prof. du Bocage. Besides these a considerable number of species are mentioned which are said with much probability to be found in the kingdom, but of which specimens are not at present forthcoming. An extremely dark hue seems almost universally to characterize the birds of the country. This peculiarity struck the author on his first arrival; and every day's observation confirmed its existence. As very little has hitherto

* We are much indebted to the kindness of Mr. H. E. Dresser for the foregoing abstract.

been known of the ornithology of Portugal, this is a most interesting paper.

TRISTRAM, H. B. On the Ornithology of Palestine, Part VII., Ibis, 1868, pp. 204-215, pls. vi., vii.; Part VIII., *tom. cit.* pp. 321-335.

The conclusion of the valuable and interesting series of articles we have so often noticed (Zool. Rec. ii. pp. 67, 68, iii. p. 53, iv. p. 57). Part VII. treats of the remainder of the *Fringillide*, with plates representing *Petronia brachydactyla*, Bp. (Consp. Av. i. p. 513), and *Serinus aurifrons* (Zool. Rec. i. p. 85), the *Columbide*, and *Gallinæ*. Part VIII. contains the *Grallæ*, *Anseres*, and *Struthiones*. The ornithology of the country is now fixed at 329 species, being 7 more than the number given by the author in his "Report" (Zool. Rec. i. p. 46). The discrepancy is fully explained (p. 332). Of these, 27 are peculiar, and 9 due to the author's discoveries: 36 species pertain to the Ethiopian Region; of these, 16 have not, in Palestine, been found out of the Dead Sea basin, the singularity of which is further shown by the fact that 11 species, belonging to as many different genera, are peculiar to it. Most of these genera are common to both the Ethiopian and Indian Regions; and it seems pretty nearly certain that this wonderful district was stocked by colonization after the close of the Eocene period and before the Glacial epoch. It now forms a "tropical outlier," of which there is no other terrestrial instance.

WALKER, THEODORE C. Remarks on the Birds of Ailsa Craig. Zoologist, Sec. Ser. pp. 1365-1373.

A very good account of this celebrated resort of sea-fowl, respecting which not much has hitherto been published.

ETHIOPIAN REGION.

BAKER, EDEN. The Birds of St. Helena. Zoologist, Sec. Ser. pp. 1472-1476.

The author makes no pretension to scientific knowledge; and the birds are only spoken of by their local names, excepting, indeed, *Charadrius pecuarius* on the strength probably of Mr. Layard's determination of that species (Zool. Rec. iv. p. 120).

BARBOZA DU BOCAGE, J. V. Aves das possessões portuguezas d'Africa occidental que existem no Museu de Lisboa. Jornal de Sciencias da Acad. Real de Lisboa, 1868, no. v. pp. 38-50.

This, the third paper of the series noticed last year (Zool. Rec. iv. p. 58), contains two lists—one of the birds of Biballa and Maconjo, the other of those of Huilla, both in West Africa. The first contains a notice of 67 species, of which 2 (belonging to *Nectariniide* and *Sylviide*) are described as new; the second

includes 26 species, 3 (belonging to *Hirundinidæ*, *Turdidæ*, and *Scolopacidæ*) being announced as new. Some other rare or little-known birds are also noticed. [*Cf.* *Ibis*, 1869, pp. 117, 118.]

BLANFORD, W. T. Notes on the Ornithology of Abyssinia. *Proc. As. Soc. Beng.* 1868, pp. 85, 167, 168, 278-287.

The author was one of the naturalists attached to the late Abyssinian expedition. These notes give a good idea of the country through which he proceeded and such animals as presented themselves to his observation on the march to Magdala and back, and subsequently on a journey into the Bogos country.

BLYTH, E. The Birds of South Africa. *Journ. Travel and Nat. Hist.* 1868, pp. 238-255.

A review of Mr. Layard's work, with the same title, written in a popular manner. Of the 792 species included by that gentleman, Mr. Blyth considers that 84 should be deducted.

GRANDIDIER, ALFRED. Notes sur les mammifères et oiseaux observés à Madagascar, de 1865 à 1867. *Rev. et Mag. de Zool.* 1868, pp. 3-7.

The conclusion of the series of papers noticed last year (*Zool. Rec.* iv. pp. 58, 59). Altogether, one hundred and fifty species are included, whereof 94 are indigenous to the island; and, except birds of great powers of flight, all are proper to its fauna.

——. Letter on the Birds of Madagascar. *Tom. cit.* p. 48.

Two species of *Campephagidæ* hitherto thought distinct are identical.

GURNEY, J. H. An Eighth additional List of Birds from Natal. *Ibis*, 1868, pp. 40-52, pl. ii.

——. A Ninth additional List of Birds from Natal. *Tom. cit.* pp. 460-471, pl. x.

The last (seventh) of this series of papers was noticed in our second volume (p. 70). The first of the two now before us adds 24 species (2 of which, belonging to *Falconidæ* and *Ploceidæ*, are recognized as new) to the list, and the last 9—the whole number (allowing for a correction, *tom. cit.* pp. 157, 158) now known to be found within the limits of the colony being 315. To each paper further remarks on species formerly included are appended; and the field-notes of Mr. Ayres, who formed the collection, are included.

——. Notes on Mr. Layard's 'Birds of South Africa.' *Ibis*, 1868, pp. 135-164, 253-265, pls. iv., viii. Correction, p. 471.

The object of these notes is to suggest points for further investigation and, in a few instances, for amplification or correction, should another edition of the work cited, which we noticed

last year (Zool. Rec. iv. pp. 60, 61)*, be published. Mr. Gurney has worked into his notes many of the observations made by Vierthaler and Dr. A. E. Brehm (Naumannia, 1852, 1853, 1855-57, and Journ. für Orn. 1853-58) in North-eastern Africa, besides much else that is of interest, especially in the way of rectification of nomenclature. In the first portion of this paper one new species (belonging to *Hirundinidæ*) is described and figured; and in the second the southern form of Ostrich (see *Struthionidæ*), some peculiarities of which have long been known, is treated as distinct from the northern. The second plate represents *Glareola nordmanni*.

HEUGLIN, M. T. VON. Synopsis der Vögel Nord-Ost-Afrikas, des Nilquellengebietes und der Küstenländer des rothen Meeres. Journ. für Orn. 1868, pp. 1-21, 73-100, 217-235, 305-328, Taf. i.

In continuation of the article noticed last year (Zool. Rec. iv. pp. 59, 60). The families comprehended in this series are *Coraciidæ*, *Oriolidæ*, *Ploceidæ*, *Fringillidæ*, *Emberizidæ*, *Alaudidæ*, and *Corvidæ*; and the more important features will be found noticed under those heads.

LAYARD, E. L. Letters on South-African Ornithology. Ibis, 1868, pp. 119-121, 242-248.

The first of these consists of remarks on migration and on the species of *Graculus* found at the Cape (see *Pelecanidæ*). The second is more important, and contains notes on some 29 species, supplementary to the account of them given by the author in his 'Birds of South Africa,' and having regard especially to their mode of breeding and eggs. Another new species (see *Laridæ*) is added to the fauna of the Cape.

MAKNO, E. Ergebnisse einer Reise in Nord-Ost-Afrika. Zoolog. Garten, 1868, pp. 212-216, 239-242.

These two papers form part of a series giving the results of Herr Casanova's expedition to obtain live animals in North-eastern Africa, and contain the ornithological portion. The first treats of the Ostrich, the second of the Birds of Prey, Hornbills, and Marabou.

NEWTON, ALFRED. Additional Notes on Mr. Layard's 'Birds of South Africa.' Ibis, 1868, pp. 265-271.

Some 26 species found by Sir Andrew Smith north of lat. 26° S., and not hitherto recorded as occurring to the south of that parallel, though included by Mr. Layard in his work (Zool. Rec. iv. pp. 60, 61), are mentioned, as well as about 6 more which would seem to have equal right with the former to a

* In this notice we mentioned only one new species as having been described by Mr. Layard. We overlooked a second, belonging to the *Turdidæ* and recorded in the present volume.

place therein. Some bibliographical notes on Sir Andrew's various ornithological publications, copies of which are very rare, are also added in the passage above cited, and again subsequently (Ibis, 1868, pp. 502, 503). [Cf. Ibis, 1869, pp. 78, 79.]

PETERS, W. Vorläufige Mittheilung über einige neue Vogelarten aus Mossambique. Journ. für Orn. 1868, pp. 131-134.

Thirteen species are described as new. They belong to the families *Alcedinidæ*, *Caprimulgidæ*, *Oriolidæ*, *Dicruridæ*, *Turdidæ*, *Sylviidæ*, *Ploceidæ*, and *Fringillidæ*.

POLLEN, F. P. L. [See SCHLEGEL, H., et POLLEN, F. P. L.]

SCHLEGEL, H., et POLLEN, F. P. L. Recherches sur la Faune de Madagascar et de ses Dépendances, d'après les découvertes de MM. F. P. L. Pollen et D. C. van Dam. Mammifères et Oiseaux. Livraisons iii., iv. Leyde: 1867-68. Roy. 8vo, pls.

The ornithological portion of this beautifully illustrated work, before noticed by us (Zool. Rec. iv. p. 61), is now completed. Besides the account of the birds collected by the naturalists whose labours it is especially intended to record, it contains a commentary on Dr. Hartlaub's 'Ornithologischer Beitrag zur Fauna Madagascar's' (Bremen: 1861), and several lists—one showing roughly the geographical distribution of birds in Madagascar and the neighbouring islands, and another the number of specimens from that subregion possessed by the Leyden Museum. The commentary on Dr. Hartlaub's work is not, we think, as carefully executed as it might have been had the authors not been content with thinking that their museum (undoubtedly very rich in this respect) contained almost everything the subregion produced. [Cf. Ibis, 1868, pp. 476, 477; 1869, pp. 112, 113.]

SMITH, A. C. The Nile and its Banks, &c. London: 1868. 2 vols. sm. 8vo, pp. 282 and 295.

To an agreeably-written narrative of a voyage on this river, the author appends (ii. pp. 197-283) a chapter on the ornithology of Egypt, besides giving a list of the species (*tom. cit.* pp. xi-xiv) he himself saw in that country, 101 in number. [Cf. Ibis, 1869, pp. 110, 111.]

SPERLING, ROWLAND M. Ornithological Notes from the Ethiopian Region. Ibis, 1868, pp. 282-295.

These notes were made on a cruise from Cape Town to Zanzibar and back; but the author was hindered from visiting several of the most interesting localities by the way. Forty-three species were noticed. A description of the breeding-place of *Sterna fuliginosa* at Ascension is also included.

VINSON, A. De l'Acclimatation à l'île de la Réunion. Oiseaux. Bull. de la Soc. Impér. zool. d'Acclimatation, 1868, pp. 625-632.

A somewhat discursive paper, in which more subjects than those strictly included by the title are mentioned. Thus the author gives a list of the 32 species of birds found in the island, of which 14 are said to have been introduced, and the remainder to be indigenous; but the nomenclature employed does not seem to be very trustworthy.

INDIAN REGION.

BEAVAN, R. C. Notes on various Indian Birds. Ibis, 1868, pp. 73-85, 165-181, 370-406. Error corrected, *tom. cit.* pp. 355, 356.

These three articles conclude the series before noticed (Zool. Rec. ii. p. 72, and iv. p. 62). Particulars, often accompanied by very precise measurements of specimens, are given concerning some 215, one of which (belonging to *Laridæ*) is described as new, while another (belonging to the same family) may possibly be so as well. Some field-notes of the late Dr. David Scott are incorporated with the author's, and a few criticisms, chiefly on points of nomenclature, added by Lord Walden. [See also BLYTH, E.]

———. Sundry Notes on Indian Raptores. Proc. Zool. Soc. 1868, pp. 390-402, pl. xxxiv. [See "ACCIPITRES."]

BLYTH, E. Letter on the Birds of the Andaman Islands. Ibis, 1868, pp. 131-133.

Several of the species included in Mr. Beavan's paper (Zool. Rec. iv. p. 62) are differently referred, and the validity of some described as new is disputed.

———. Letter on Indian Birds. *Tom. cit.* pp. 354, 355.

Remarks on the second of Mr. Beavan's articles (*ut supra*).

GOULD, JOHN. The Birds of Asia. Part xx. London: 1868. Imp. folio.

All but one of the species figured are Indian. A new generic name is proposed (see *Hirundinidæ*). [Cf. Ibis, 1868, p. 472.]

HUME, ALLAN. Stray Notes on Ornithology in India. Ibis, 1868, pp. 28-40.

Treats of the habits of *Grus leucogeranus*.

———. Letter on Indian Ornithology. *Tom. cit.* pp. 233-241.

Gives particulars of various species of *Saxicola*, records the occurrence in India for the third time of *Pelecanus crispus*, and treats of various other birds.

KING, GEORGE. On the Birds of the Goona District. Journ. As. Soc. Bengal (1868), xxxvii. pp. 208-218.

The district lies in Central India, about 200 miles south of Agra, and at an elevation of 1400 feet and upwards. A nominal list of 178 species observed is given, to which are prefixed a few notes on some of them.

MAINGAY, —. Notes on rare and little-known Malayan Mammals and Birds. Proc. As. Soc. Bengal, 1868, pp. 194-198.

These are very brief, but a supposed new species of *Bucrotidae* is described.

PELZELN, AUGUST VON. Ueber die von Dr. Stoliczka im Himalaya und in Tibet gesammelten Vogelarten. Journ. für Orn. 1868, pp. 21-37; *Ibis*, 1868, pp. 302-321 (translated, with notes, by Lord WALDEN).

After a few words of introduction, an alphabetical list of the localities, with their geographical position and elevation above the sea (from 1000 to 17,000 feet), at which the species were obtained is given. Then follows a list of these species, 190 in number, with their localities, and a few remarks. The paper is a valuable one, from the well-known accuracy of its author, who makes a few identifications of species not hitherto suspected; and the English version is more valuable still from the translator's notes.

SALVADORI, TOMMASO. Nuove specie di Uccelli di Borneo. Atti della R. Accad. Sc. di Torino, 1868, pp. 524-533.

Eight are described as new (see *Picidae*, *Pittidae*, *Timaliidae*, *Campephagidae*, *Muscicapidae*, and *Sylviidae*), but no precise localities are given. [*Cf. Ibis*, 1868, p. 482.]

STOLICZKA, F. Ornithological Observations in the Sutlej valley, N.W. Himalaya. Journ. As. Soc. Bengal (1868), xxxvii. pp. 1-70.

The author's collections in the Himalaya and Tibet have been examined by Herr von Pelzeln (*vide supra*). In the present paper, after some introductory remarks and an elaborate description of the natural features of the Sutlej valley, Dr. Stoliczka enumerates the species which have fallen under his observation in that district between May and October, 280 in number, adding notes which give a great variety of valuable information respecting many of them. Three species (belonging to *Platycercidae*, *Fringillidae*, and *Alaudidae*) are described as new, and two others (*Cinclididae* and *Sylviidae*) may probably be so as well; but to these latter the author refrains from applying names. Six species are in all added to, and four probably subtracted from, the Indian fauna by him. [*Cf. Ibis*, 1869, pp. 208-215.]

1868. [VOL. V.]

SWINHOE, ROBERT. Ornithological Notes from Amoy. *Ibis*, 1868, pp. 52-65.

In continuation of the papers noticed last year (*Zool. Rec.* iv. p. 64), and of the same comprehensive character. Five species are described as new, belonging to *Timaliidae* (*Pterorhinus*, g. n.), *Sylviidae*, *Paridae* (2), and *Rallidae*.

— Letter on the Ornithology of Hainan. *Tom. cit.* pp. 353, 354.

A few very short notes on the birds of this (ornithologically speaking) almost unknown island, the avifauna of which seems to possess several peculiar characters. *Pavo nigripennis*, Sclat. (*P. Z. S.* 1860, pp. 221, 222), is supposed to be a native of Annam.

TYTLER, ROBERT C. Notes on the Birds observed during a march from Simla to Mussoorie. *Ibis*, 1868, pp. 190-203.

After a short description, given in the form of a journal, of the country traversed (which varied in elevation from 4500 to 10,300 feet), 126 species* are enumerated, and short notes given of the localities where they were found.

— Observations ornithologiques. *Rev. et Mag. de Zool.* 1868, pp. 193-199.

These are contained in a letter addressed to, and translated by, M. Jules Verreaux, but bearing date 7 May, 1863. They have reference to the Andaman Islands, of the avifauna of which a very complete list by Mr. Beavan in the meantime appeared (*Zool. Rec.* iv. p. 62), but this is not noticed by the translator. As Mr. Beavan was largely aided by Col. Tytler, it follows that this gentleman's later observations are those which should be trusted; and, indeed, many of his former determinations subsequently proved to be erroneous. Consequently the present paper is of very little value (*cf.* R. C. Beavan, *Ibis*, 1869, pp. 220, 221).

VERREAUX, JULES. Notes ornithologiques. *Ann. des Sciences Naturelles, Zoologie*, 5e sér. x. p. 67.

Four species from China and Cochin China, belonging to *Megalæmidae*, *Muscicapidae*, *Paridae*, and *Emberizidae* are described as new.

WALDEN [ARTHUR HAY] Viscount. [See PELZELN, AUGUST VON.]

AUSTRALIAN REGION.

ALLPORT, MORTON. On the Local Distribution of some Tasmanian Animals. *Pap. & Proc. Roy. Soc. Tasmania*, May 1867, pp. 9-12.

* The original description of two of these, belonging to *Dicruridae* and *Emberizidae*, we have been unable to find.

While certain species of birds have entirely vanished as cultivation and human population extends, a few others have appeared and even established themselves in the settled districts.

ALLPORT, MORTON. Remarks on Mr. Krefft's 'Notes on the Fauna of Tasmania.' *Op cit.* July 1868, pp. 33-36.

With Mr. Krefft's 'Notes' we are not acquainted. Mr. Allport points out a few inaccuracies in them, and adds some eight species * to the ornis of the island.

DIGGLES, SYLVESTER. The Ornithology of Australia. Queensland. Imp. 4to. Parts XVI-XX., pls.

Five parts of this work, containing a large number of figures (which will be found mentioned under the families they represent), have reached us since we last noticed it (*Zool. Record*, iv. p. 64).

FINSCH, O. (See HAAST, J., and HARTLAUB, G., and FINSCH, O.)

GOULD, JOHN. On Two New Australian Birds. *Proc. Zool. Soc.* 1868, pp. 74-76. [See *Cuculidæ* and *Pittidæ*.]

HAAST, JULIUS. Beobachtungen über einige Vögel Neu-Seelands. *Journ. für Orn.* 1868, pp. 238-245.

This is a compilation by Dr. Finsch from a letter of Dr. Haast's, and from the latter's 'Report,' which we mentioned last year (*Zool. Record*, iv. p. 66), and contains a few corrections of the former's translation of Mr. Buller's 'Essay' (*tom. cit.* p. 64). Twenty-one species are noticed, besides the skeletons of seven species of *Dinornis* in the museum at Christchurch, New Zealand.

HARTLAUB, G., and FINSCH, O. On a collection of Birds from the Peléw Islands. *Proc. Zool. Soc.* 1868, pp. 4-9, pls. ii., iii.

A former collection from these islands, among others, was noticed last year (*Zool. Record*, iv. p. 66). The present contains thirty-five species, of which six, belonging to the families *Meliphagidæ*, *Laniidæ*, *Muscicapidæ* (2), *Sylviidæ*, and *Columbidæ*, are new. Two new genera are made, and their types figured. A variety of useful particulars are given with respect to other birds of the islands.

—, —. Additional Notes on the Ornithology of the Pelew Islands. *Tom. cit.* pp. 116-118.

Eighteen species (of which one †, belonging to *Meliphagidæ*, is new) are added to the ornis of the group, which now numbers forty-one species. Of these, eight are peculiar to the islands.

* Some of them had previously been mentioned by the author, at a meeting of the Society in October 1865 (*op. cit.* 1865, p. 106).

† The authors say that "two" are undescribed, but we are unable to find the second.

RAMSAY, E. P. Letter on Australian Ornithology. *Ibis*, 1868, pp. 231-233.

On the breeding-habits, nest, eggs, and young of *Donacola castaneothorax*.

——. Notes on Birds breeding in the neighbourhood of Sydney. *Tom. cit.* pp. 271-280. [See "Oology."]

——. On certain New and Rare species of Birds found at Rockingham Bay, Queensland. *Proc. Zool. Soc.* 1868, pp. 381-388.

Forty species are enumerated, of which five (belonging to *Falconidae*, *Caprimulgidae*, *Menuridae*, and *Meliphagidae*) are supposed to be new, but the two first are left unnamed; a new genus (of *Muscicapidae*) is also recommended.

WALLACE, ALFRED R. On the Raptorial Birds of the Malay Archipelago. *Ibis*, 1868, pp. 1-27, pl. i.

——. Corrections of, and additions to, the Catalogue of the Raptorial Birds of the Malay Archipelago. *Tom. cit.* pp. 215, 216.

The first of these papers is of a piece with the author's former monographs of the *Psittaci* and *Columbae* of the same part of the world (*Zool. Rec.* i. pp. 53-55, ii. pp. 76-78); but the subject, or some portion of it, having been lately handled by Prof. Schlegel and Dr. Kaup (*Zool. Record*, iii. p. 58, iv. pp. 81, 82), Mr. Wallace's treatment of it is necessarily more critical. Furthermore, his scope is larger than that of either of the zoologists named. Eighty-seven species are enumerated, many of which would no doubt by some authors be only regarded as local forms. The *Vulturidae* are entirely absent. The average number of species of *Falconidae* found in an island is ten, of *Strigidae* three; Java, however, possesses seventeen of the former and eight of the latter. Taking the groups of islands, the number diminishes pretty regularly from west to east; yet, owing to the richness of the Celebes as compared with the Philippine group (as at present known), that part of the archipelago which, according to our arrangement, falls to the Indian Region furnishes fewer species than the part which is more strictly Australian, the proportion being forty-four to fifty-eight. Celebes presents, as usual, some striking peculiarities, many of its species, though of different genera, having a similar style of coloration. Though this paper is elaborated with its author's customary care, including a synonymatic list, field-notes, and geographical table, a supplement was shortly after required, wherein the author, besides making a few minor corrections, adds three other species to his catalogue, and throws some doubt on one (*Spizaetus nanus*) which he had just before described and figured as new. [See "ACCIPITRES."]

NEARCTIC REGION.

BROWN, ROBERT. Synopsis of the Birds of Vancouver Island. Ibis, 1868, pp. 414-428.

After a concise notice of the literature of the subject, 153 species are enumerated as said to occur on the island, five of which are perhaps doubtful, and fourteen more did not come within the author's observation. Some sixty-two more ought to be looked for. The notes on the various species are not numerous.

COUES, ELLIOTT. List of Birds collected in South Arizona by Dr. E. Palmer. Proc. Acad. Nat. Sc. Philadelphia, January 1868, pp. 4*.

The author adds four species to those named in his former paper (Zool. Record, iii. p. 61); and the list is also valuable in clearly indicating some differences between the avifauna of the southern desert and that of the northern mountain portions of the district. [Cf. Ibis, 1868, p. 485.]

——. Synopsis of the Birds of South Carolina. Proc. Boston Soc. Nat. Hist. xii. pp. 104-127.

After a few remarks on the characters of the ornithology of this State, the author gives a list of the 294 species which compose it, appending brief notes containing much information as to their distribution, and particularly with regard to the season of their appearance. Those which are characteristic of the South-Atlantic and Gulf States, 14 in number, have an asterisk prefixed to their names. [Cf. Ibis, 1869, pp. 118-120.]

——. Catalogue of the Birds of North America contained in the Museum of the Essex Institute; with which is incorporated a List of the Birds of New England. With brief Critical and Field Notes. Proc. Essex Instit. v. pp. 249-314. Separately printed as 'A List of the Birds of New England.' Salem, Mass.: 1868. 8vo, pp. 71.

This capital paper, the author remarks, "is perhaps more needed since than before the appearance of Mr. Samuel's work," which we noticed last year (Zool. Rec. iv. pp. 67, 68). Dr. Coues gives a list of authors who have previously treated the subject; and his critical remarks throughout are of the best; those on the peculiarities of the New-England avifauna (pp. 2, 3) deserve especial mention, as being of general interest. About 335 species are enumerated as having certainly occurred; many more rest on doubtful evidence. [Cf. Ibis, 1869, pp. 228, 229.]

DUGÈS, ALFRED. Aperçu général sur la Faune de Guanajuato (Mexique). Bull. de la Soc. Impér. zool. d'Acclimatation, 1868, pp. 546-578.

Of no very great value to the zoologist; as to the ornithology

* We are unable to give the precise pagination for the reason before mentioned (p. 30, note).

of the country, first the domestic species are treated (pp. 558-560), then the useful or agreeable wild ones (pp. 562-567), and lastly those which are noxious (pp. 573, 574).

ELLIOT, D. G. The Birds of North America. Parts IX.-XII. New York: 1868. Imp. fol.

Four parts of this great work have appeared within the past year. The species figured are named under their genera in the special portion of this Record. [Cf. Ibis, 1868, pp. 345, 346.]

SUMICHRAST, F. On the Geographical Distribution of the Native Birds of the Department of Vera Cruz. Proc. Boston Soc. Nat. Hist. xii. (1868) pp. 222-225.

An abstract of a paper communicated by Dr. Brewer, and published at length in the present year in the 'Memoirs' of the Society (i. pp. 542-563). Nominal lists are given of the birds found in the three zones or "regions" into which the author divides the country; and in the paper at full length, notes of much interest are appended respecting many of them.

NEOTROPICAL REGION.

BURMEISTER, H. Contributions to the Ornithology of the Argentine Republic and adjacent Lands. Part I. Proc. Zool. Soc. 1868, pp. 633-636.

Since the publication of the author's "Systematisches Verzeichniss der in den La Plata-Staaten beobachteten Vögelarten" (Journ. für Orn. 1860, pp. 241-268) and his 'Reise durch die La Plata-Staaten' (1861), he has lived five years in Buenos Ayres, and in studying the ornithology of the district has observed some new species, three of which (belonging to *Falconidæ*, *Dendrocolaptidæ* and *Cotingidæ*) are now described, and notes on eleven others are given.

COPE, EDWARD D. The Birds of Palestine and Panama compared. American Naturalist, 1868, pp. 351-359.

Founded on the researches of Messrs. Tristram, Selater, and Salvin. The Palestine *ornis* excels that of Panama in superiority of development (according to what appears to be the author's views of it), the *Oscines* of the former finding their parallels in the *Clamatores* of the latter.

CUNNINGHAM, ROBERT O. Letters on South-American Ornithology. Ibis, 1868, pp. 122-129, 486-495.

The author is naturalist on board H.M.S. 'Nassau,' employed in surveying the Strait of Magellan, and in his first letter gives a very general account of the birds met with on his voyage thither and on the coast of Patagonia. [See SCLATER, P. L., and SALVIN, O.] In his second letter he describes briefly the localities visited, mentioning their chief ornithological features, in the season 1867-68.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Brasiliens. Journ. für Orn. 1868, pp. 182-194.

In continuation of the very interesting series of papers noticed last year (Zool. Rec. iv. p. 68), and of the same character. An account of the mode of breeding of thirteen more species (one belonging to *Tyrannidæ* being new) is given, as well as further particulars of one respecting which mention has already been made.

GIEBEL, C. Einige neue und wenig bekannte argentinische Vögel. Zeitschr. für die gesammten Naturwissenschaften, 1868, pp. 11-17.

Notes on four species, two of which, belonging to *Dendrocopaptidæ* and *Troglodytidæ*, appear to be described as new.

LAWRENCE, G. N. A Catalogue of the Birds of Costa Rica. Ann. Lyc. Nat. Hist. New York, 1868, pp. 86-141*.

This catalogue is based upon the collections received by the Smithsonian Institution, supplemented by information received from other sources, and includes notices of 474 species of Land-birds, of which twelve (belonging to *Trogonidæ*, *Formicariidæ*, *Dendrocopaptidæ*, *Tyrannidæ*, *Mniotiltidæ*, *Tanagridæ*, *Columbidæ*, and *Tinamidæ*) are described as new, while a thirteenth (*Trochilidæ*) may be so. In the introductory remarks the author gives a summary of previous writings on Costa-Rican ornithology, and three lists, the first two of species noted from Chiriqui and Veraguas respectively which may be found in Costa Rica, and the third of northern species obtained in Panama but not yet observed in the country of which the paper treats. The remainder of the paper is devoted to the catalogue, which, in the great majority of cases, gives only the name of the species and of the locality where it has been obtained. [Cf. O. Salvin, Ibis, 1869, pp. 310-319.]

PELZELN, AUGUST VON. Zur Ornithologie Brasiliens. Resultate von Johann Natterers Reisen in den Jahren 1817 bis 1835.

I. Abtheilung. Wien: 1868. 8vo, pp. 68, xxxi. With Map.

The object of this work is to give a connected account of the results of Natterer's travels. It consists first of a list of the species collected by him, showing the number of specimens of each and the dates when they were procured; and this first part of the book includes one hundred species, being about a twelfth of his collections. Then follows a description by the author of twenty new or little-known species. Of the former there are

* The concluding part of this paper (which, as internal evidence shows, does not belong to the literature of 1868), beginning in the middle of page 141 with the order *Grallæ*, has just reached us. We only mention it now to obviate any confusion that might arise when the whole is bound up and there is nothing left to show that one part was printed nearly twelve months before the other.

twelve, belonging to *Cypselidæ*, *Trochilidæ* (not procured by Natterer), *Dendrocolaptidæ* (7), and *Troglodytidæ* (3), one of the latter being the type of a new genus. An Itinerary of Natterer's ten journeys, with a list showing the geographical distribution of each species throughout the six "Faunas" into which the author divides the Brazilian Empire, conclude the publication.

Natterer's labours certainly deserved some such recognition as this; and Herr von Pelzeln, by completing the work, will confer a great benefit on ornithologists. The map does not seem to have been drawn with special reference to Natterer's wanderings, and some of the most important places at which he collected are omitted from it. [Cf. *Zeitschr. ges. Naturwissensch.* 1867, p. 537; *Ibis*, 1868, pp. 226, 227, 1869, pp. 113-117; *Zool. Gart.* 1868, p. 40.]

PHILIPPI, R. A. Letter relating to certain Birds of Chili. *Proc. Zool. Soc.* 1868, pp. 531, 532.

Contains a few corrections of his previous works on the subject (cf. *P. Z. S.* 1867, pp. 319, 320, notes), the principal referring to two species of *Anatidæ*.

SALVADORI, TOMMASO. Intorno ad alcuni Uccelli di Costa Rica. *Atti della R. Accad. Sc. di Torino*, 1868, pp. 170-185.

Twenty-three species are enumerated, but none are new. A new genus of *Momotidæ*, however, is founded, and *Pheucticus tibialis* (*Zool. Rec.* iv. p. 107) is figured. [Cf. *Ibis*, 1869, pp. 222, 223.]

SALVIN, O. [See SCLATER, P. L., & SALVIN, O.]

SCLATER, P. L., and SALVIN, O. List of Birds collected in the Straits of Magellan by Dr. Cunningham, with Remarks on the Patagonian Avifauna. *Ibis*, 1868, pp. 183-189.

Forty-four species, of which examples were collected in the district by Dr. Cunningham (*vide supra*, p. 54), are enumerated, with a short preliminary sketch of the labours of former investigators in the same quarter. A complete list of the Patagonian *Passeres* is also given, showing which are common to Chili and which to La Plata, the whole proving that Patagonia belongs to the same zoological province as Chili. None of the species enumerated are new; but one specimen of a female *Dafila* is left undetermined.

—, —. Descriptions of New Species of Birds of the Families *Dendrocolaptidæ* [2], *Strigidæ* [2], and *Columbidæ* [2]. *Proc. Zool. Soc.* 1868, pp. 53-60.

—, —. List of Birds collected at Conchitas, Argentine Republic, by Mr. William H. Hudson. *Tom. cit.* pp. 137-146.

Ninety-six species are represented in the collection, of which fourteen are not included by Prof. Burmeister (*Reise durch die La Plata-Staaten*, Bd. ii.). The locality is about twelve miles from Buenos Ayres. None of the species are new, but several rare. Several rectifications of nomenclature are made.

SCLATER, P. L., and SALVIN, O. On Venezuelan Birds collected by Mr. A. Goering. Part I. *Tom. cit.* pp. 165-173, pl. xiii. Part II. *Tom. cit.* pp. 626-632.

The first of these papers contains a nominal list of 126 species arranged in a tabular form to show the localities at which they were obtained by the collector, to which are added notes on 13 of them. Three, belonging to *Mniotiltidae* and *Tyrannidae* (2), are new, and two are figured, one of the last being the type of a new genus.

The second paper is on the same plan. The nominal list includes 99 species; and notes are appended to 13, of which 2, belonging to *Cotingidae* and *Tyrannidae*, are new.

—, —. On Peruvian Birds collected by Mr. H. Whitely. Part II. *Tom. cit.* pp. 173-178. Part. III. *Tom. cit.* pp. 568-570.

These two articles are in continuation of that noticed last year (*Zool. Rec.* iv. p. 71). The first contains a list of a collection made in the Tambo valley, including 28 species, none of which are new: but valuable critical notes are appended to it, and woodcuts of the head of 2 species, belonging to *Tanagridae* (?) and *Rallidae*, are introduced. Various emendations of the species included in Dr. Salvadori's paper (*Zool. Rec.* ii. p. 59) are added (p. 175, note).

The second article contains a list of a small collection of 11 species (none of which are new) made near Arequipa. To it is subjoined a nominal list of the 83 species obtained by Mr. H. Whitely in Western Peru; and the more salient features of the ornithology of that district compared with that of the corresponding eastern slope of the Andes are briefly given. The former is without many of the groups characteristic of the latter, and the majority of the forms it possesses are common to the Patagonian Province of the Neotropical Region.

—, —. Descriptions of New or little-known American Birds of the Families *Fringillidae*, *Oxyrhamphidae* [see *Dendrocolaptidae*], *Bucconidae*, and *Strigidae*. *Tom. cit.* pp. 322-329, pl. xxix.

—, —. Descriptions of Four New Species of Birds from Veragua. *Tom. cit.* pp. 388-390.
[See *Trochilidae*, *Tyrannidae*, and *Tanagridae* (2).]

—, —. Synopsis of the American *Rallidae*. *Tom. cit.* pp. 442-470, pl. xxxv.

ANATOMY AND PHYSIOLOGY.

COUES, ELLIOT. Bird's-eye Views. *American Naturalist*, 1868, pp. 505-513.

A popular account of the accessory structures of a bird's eye.

DARWIN, CHARLES. The Variation of Animals and Plants under Domestication. [See also "GENERAL SUBJECT."]

Various interesting and remarkable osteological details with respect to Pigeons, Fowls, and Ducks are herein contained; and some are mentioned below, under *Columbidæ*, *Phasianidæ*, and *Anatidæ*.

DAVY, JOHN. On the Temperature of the Common Fowl (*Gallus domesticus*). *Proc. Roy. Soc. Edinb.* vi. p. 291.

A posthumously-published communication, of which the following are given as the chief results:—

- (1) The average temperature is $107^{\circ}81$.
- (2) Before maturity it is $108^{\circ}5$.
- (3) That of the cock is $108^{\circ}39$, that of the hen $107^{\circ}3$.
- (4) That of the fully mature cock is $108^{\circ}77$.
- (5) That of the laying hen is $107^{\circ}4$.
- (6) That of the incubating hen is 107° .
- (7) During moulting it is $108^{\circ}44$.

HAUGHTON, SAMUEL. On the Muscular Mechanism of the Leg of the Ostrich. *Proc. Roy. Irish Acad.* ix. pp. 50-61.

A reprint, with figures, of the paper before noticed (*Zool. Rec.* ii. pp. 85, 138).

——. Muscular Anatomy of the Emu (*Dromæus novæ-hollandiæ*). *Tom. cit.* pp. 487-497.

——. Muscular Anatomy of the Rhea (*Struthio rhea*). *Tom. cit.* pp. 497-504.

——. On the Comparative Myology of certain Birds. *Tom. cit.* pp. 524-526.

The first two of these three papers contain notes in much detail on their respective subjects, illustrated by figures. The birds treated of in the third paper are *Falco peregrinus*, *Polyborus brasiliensis*, *Grus virgo*, and *Anser canadensis*.

HUXLEY, T. H. [See also "GENERAL SUBJECT."]

——. Remarks upon *Archæopteryx lithographica*. *Proc. Roy. Soc.* 30 Jan. 1868, vol. xvi. pp. 243-248. Reprinted, *Ann. & Mag. Nat. Hist.* 4th ser. i. pp. 220-224.

The author states that there are several important errors in Prof. Owen's description (*Phil. Trans.* 1863) of this celebrated fossil—among them, that the specimen presents its dorsal instead of its ventral surface to the eye, and that many of the bones which have been attributed to the right side of the animal are those of the left, and *vice versa*. He concludes by

saying that it is in his opinion quite possible that *Archæopteryx* may have had teeth in its jaws, though this would not render it the less a bird. In the tarsal region *Compsognathus* comes nearest to it; in the pelvic, *Megalosaurus* and *Iguanodon*; and Prof. Huxley is disposed to think that in many respects *Archæopteryx* was more remote from the boundary-line between Birds and Reptiles than some of the living *Ratitæ* are.

KLEIN, — VON. Vergleichende Beschreibung des Schädels der Wirbelthiere. Versuch einer auf anatomische Gründe sich stützenden, gleichartig durchgeführten Benennung der Schädelknochen. Württemb. naturwissensch. Jahreshefte, 1868, pp. 71–171.

The class *Aves* comes in for a fair share of treatment in this paper.

LEE, R. J. Observations on the Ciliary Muscle in Fish, Birds, and Quadrupeds. Journ. Anat. & Physiol. Nov. 1868, 14–23.

Contains descriptions with illustrations of this part in *Gallus*, *Strix*, *Falco*, and *Phasianus*.

MACALISTER, ALEXANDER. On the Anatomy of the Ostrich (*Struthio camelus*). Proc. Roy. Irish Acad. ix. pp. 1–24.

Gives the anatomy of the whole animal of both sexes, Dr. Haughton having before treated of a portion (Zool. Rec. ii. pp. 85, 138) in considerable detail.

MAGNUS, HUGO. Physiologisch-anatomische Untersuchungen über das Brustbein der Vögel. Arch. für Anat. Physiol. und wissensch. Med. 1868, pp. 682–710, Taf. xvi., xvii.

After a brief reference to the authors who have previously written on the subject (De Blainville, L'Herminier, Geoffroy St.-Hilaire, Gervais, and Blanchard), and remarking on the importance of the sternum as a taxonomic character, the author states that five principal forms of this bone are found,—the First in the *Cursores* [= *Struthiones*], where it has no keel, and is of a rounded shield-shape, though he remarks on the absence of a keel in the very young of those birds which subsequently have it well developed; the Second form exists in the diurnal *Accipitres*, the *Cypselidæ*, and *Caprimulgidæ*, where it is very concave, long and broad, with a remarkably pronounced keel, though the angle this forms with the body of the sternum is obtuse; the Third, as in the *Oscines*, with *Upupa*, *Alcedo*, and so forth, the *Gallinæ* and most of the *Scansores*, has it less concave, the keel well developed and a notch (or occasionally two notches) on either side; the Fourth form, possessed by the Swimming-birds, *Mergus*, *Sula*, *Podiceps*, and others, is less concave, the point of the keel projects forward, and the notches sometimes become fenestrations; the Fifth group includes the *Grallatores*,

where the sternum is long and narrow, more concave, and never without notches, and the keel much pronounced. The remainder of the paper is occupied by a notice of various modifications which different groups exhibit. [Cf. Journ. Anat. & Physiol. May 1869, p. 458.]

MILNE-EDWARDS, A. Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux Fossiles de la France. [See "GENERAL SUBJECT."]

MURIE, J. Observations concerning the presence and function of the Gular Pouch in *Otis kori* and *Otis australis*. Proc. Zool. Soc. 1868, pp. 471-477, pl. xxxvi.

A male *O. kori* possessed a pouch, of which a woodcut is given, in position and structure identical with that of *O. tarda* (Zool. Rec. ii. pp. 83, 84, and 133, iii. p. 110), but very much smaller. The same organ is possessed by a male *O. australis* living in the Zoological Gardens, and developed to an extraordinary degree, as the plate* shows. Its manner of inflating this structure, and other habits, are described. A second male example, living with it, does not exhibit any indications of this peculiarity †; nor did examples of *O. tetrax* or *O. houbara*. Some excellent remarks on this mysterious subject are added.

NEWTON, ALFRED. [See "GENERAL SUBJECT."]

PARKER, W. K. A Monograph on the Structure and Development of the Shoulder-girdle and Sternum in the *Vertebrata*. London: 1868. Fol. pp. 237, pls. xxx. (Ray Society.)

Though we can scarcely say that the subject-matter of this admirable work is treated zoologically, its great merit forbids us to exclude it from notice. The ornithological portion (pp. 142-194) occupies a fair share of the work. The systematist must naturally regret that Mr. Parker's investigations do not yet produce more practical results; but it is necessary here to be patient, for it cannot fail that studies so conscientious will not eventually bear fruit. [Cf. Journ. Anat. & Physiol. May 1868, pp. 374-381; Ibis, 1868, pp. 474, 475.]

RUEDINGER, —. Die Muskeln der vorderen Extremitäten der Reptilien und Vögel mit besonderer Rücksicht auf die analogen und homologen Muskeln bei den Säugethieren und dem Menschen. Natuurk. Verhand. van de Hollandsche Maatschappij der Wetenschappen te Haarlem. xxv. Deel, 187 pp. xv. Taf.

This is one of the prize essays of the Harlem Society. The

* Notwithstanding that the figure is a gross caricature, we can state that the peculiarity which it is chiefly intended to represent is not exaggerated.

† The mouth and entire neck of the specimen described by Mr. Ramsay (Zool. Rec. iv. p. 120) has been sent to us by him. There is no trace of a gular pouch in it.

birds selected to illustrate the subject are *Vultur cinereus*, *Casuarus galeatus*, *Struthio camelus*, and *Aptenodytes demersus*; and of these species the myology of the fore limbs is described in great detail.

VAN DER HOEVEN, J. *Annotationes de Dromade ardeola*, Payk. Dresdæ: 1867. 4to, pp. 16, pl. Separately printed from Nov. Act. Ac. L.-C. Nat. Cur. xxxiii. Translated, Archives Néerlandaises, 1868, pp. 281-295.

A very full description of the osteology of this form, which the author places next to *Hæmatopus* (cf. Ibis, 1867, p. 351).

VOIT, —. Beobachtungen nach Abtragung der Hemisphären des Grosshirns bei Tauben. Sitzungsab. Ak. Wissensch. München, 1868, ii. pp. 105-108.
Purely physiological.

Geopsittacus occidentalis, some parts of its osteology very minutely described. J. Murie, Proc. Zool. Soc. 1868, pp. 162-165.

PTEROLOGY.

CORNALIA, EMILIO. Sopra due casi di Albinismo negli Uccelli. Atti della Soc. Ital. di Sc. Nat. x. pp. 449-458.

The two cases are those of *Passer montanus* and *Chelidon urbica*; and in reference to them the author enters at some length on the generalities of the subject of albinism.

COUES, ELLIOTT. Instances of Albinism among our Birds. American Naturalist, 1868, pp. 161, 162.

About a dozen examples, chiefly of North-American species, in which this peculiarity has been observed, are described.

NEOSSOLOGY.

BETTONI, EUGENIO: Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See "PALÆARCTIC REGION."]

The young of *Monticola saxatilis*, *Upupa epops*, *Ruticilla phœnicura*, *Sturnus vulgaris*, *Phyllopneuste bonellii*, *Circus æruginosus*, *Hirundo rustica*, *Philomela lusciniæ*, *Curruca orphea*, *Strix flammea*, *Turtur auritus*, *Tinnunculus alaudarius*, *Carduelis elegans*, *Motacilla alba*, *Enneoctonus rufus*, *Ardea purpurea*, *Hypolaïs salicaria*, *Buteo cinereus*, *Cypselus apus*, *Sylvia cinerea*, *Ruticilla tithys*, *Dendronanthus arboreus*, *Cyanistes cæruleus*, *Petrocosyphus cyaneus*, *Prunella modularis*, *Cotyle riparia*, *Troglodytes europæus*, *Jynx torquilla*, *Corvus cornix*, and *Otus vulgaris* are figured.

MARCHAND, ALB. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1868.

The series of figures for the past year represents :—

Perdix rubra	pl. 1	Charadrius cantianus	pl. 10
— græca	" 2	Otis tetrax	" 17
Gallinula bailloni	" 3	Anser leucopsis	" 18
— crex	" 4	Anas clangula	" 19
Glareola pratincola	" 5	Fuligula marila	" 20
Charadrius minor	" 6	Heads of Tetrao urogallus,)	
Anas clypeata	" 7	T. tetrix, T. bonasia, T. }	" 21
Fuligula cristata	" 8	scoticus, T. saliceti, and }	
Charadrius hiaticula	" 9	T. lagopus	

As before (Zool. Rec. iv. p. 76), there is no letterpress to these plates.

Cathartes californianus, the nestling figured [from apparently an older example than that represented, Ibis, 1860, pl. ix.]. S. F. Baird, P. Z. S. 1868, pp. 182, 183.

Menura superba, the nestling described. E. P. Ramsay, P. Z. S. 1868, p. 51.

M. victoria, the nestling described. J. Gould, *tom. cit.* p. 53.

Rhynchotis rufescens, the chick (which much resembles that of *Rhea americana*) described and figured (*cf.* Zool. Record, iv. p. 117). A. D. Bartlett, P. Z. S. 1868, pp. 114, 115, pl. xii.

OOLOGY AND NIDIFICATION.

ARGYLL [GEORGE JOHN DOUGLAS CAMPBELL], Duke of. On Mr. Wallace's Theory of Birds' Nests. Journ. Travel and Nat. Hist. 1868, pp. 276–287.

We give below a very full abstract of Mr. Wallace's paper, on account of the novelty of the ideas it contains, and regret we cannot enter at the same length upon his opponent's views, which are very ably stated. The Duke of Argyll contends that the nest-building instinct is equally innate with the structure, habits, and intelligence of birds, and that all are strictly correlated together. Citing his instances in refutation of Mr. Wallace's theory (founded as that is on long personal observation of the most gorgeous of tropical birds) from the comparatively dully-coloured birds of the British Islands, the Duke lies under some disadvantage; but he certainly points out an omission in the theory when he suggests that one great object and use of some domed nests, and also of many nests being made in holes, is simply the better conservation of animal heat.

BARTLETT, A. D. Notes on the Breeding of several Species of Birds in the Society's Gardens during the year 1867. Proc. Zool. Soc. 1868, pp. 114–116, pl. xii.

Twenty-four species are mentioned as having bred for the first time, the most remarkable of them having been *Rhynchotis rufescens* (*cf.* Zool. Record, iv. p. 117) and *Eurypyga helias*. *Rhinocetus jubatus* also laid an egg in 1868. The young of the first mentioned, and the eggs of all three, are figured—the latter unfortunately not so as to give any precise idea of their appearance.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia &c. [See "PALÆARCTIC REGION."]

On Plate III. of this work are figured the eggs of:—

Merula vulgaris (10), *Pica caudata* (2), *Garrulus glandarius* (3), *Corvus cornix* (2), *Turdus viscivorus* (3), *Cinclus aquaticus* (2), *Merops apiaster* (2), *Picus major* (2), *Cyanistes caeruleus* (3), *Parus ater* (2), *Hirundo rustica* (2), *Chlorospiza chloris* (3), *Troglodytes europæus* (2), *Mecistura caudata* (2), *Pyrigita montana* (6), *Calamoherpe turdoides* [sc. *arundinacea* (L.)] (4), *C. arundinacea* (Gmel.) [sc. *strepera* (Vieill.)], *Pratincola rubicola* (2), *Budytes flava* (2), *Fringilla cœlebs* (2).

BROWN, J. A. H. Ornithological Notes for the last Six Months, including Extracts from the Journal of a Nesting-Tour in Sutherland. Zoologist, Sec. Ser. pp. 1305–1311.

In continuation of a paper noticed last year (Zool. Record, iv. p. 77). The most remarkable occurrences recorded are the supposed breeding of *Fuligula ferina* and *Colymbus glacialis* in the county.

DYBOWSKI, B., and PARREX, A. [See "PALÆARCTIC REGION."]

A table showing the number of eggs laid by fifty-two species of Daurian birds is given.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Brasiliens. [See "NEOTROPICAL REGION."]

FEILDEN, H. W. On the Nesting of the Egyptian Vulture (*Neophron percnopterus*). Zoologist, Sec. Ser. pp. 1281–1283.

These observations were made in India, and therefore refer to *N. ginginianus* (Lath.) (cf. Zool. Record, ii. p. 91).

HOLTZ, LUDWIG. Brutvögel der Insel Gottland. Journ. für Orn. pp. 100–131.

In continuation of the articles before noticed (Zool. Record, iii. p. 71) and of the same character. Twenty-three species are added to those which have before been observed by the author breeding on the island, but none of them demands any particular notice.

KÖNIG-WARTHAUSEN, RICHARD. Zur Fortpflanzungsgeschichte des Stentor-Röhrsängers, *Acrocephalus stentorius*. Journ. für Orn. 1868, pp. 135–137, Taf. ii. figs. 1, 2.

The nest and eggs are figured and described from examples obtained by Dr. von Heuglin.

MOSLEY, OSWALD. Nidification of the Bohemian Waxwing [*Ampeelis garrulus*] in England. Zoologist, Sec. Ser. p. 1294.

This extraordinary statement rests on the evidence of the author's servants.

[MURRAY, ANDREW.] Reply to Mr. Wallace's Theory of Birds' Nests. Journ. Travel and Nat. Hist. 1868, pp. 137–145.

This paper, though published without the writer's name, is confessedly by the author of the 'Geographical Distribution of Mammals' (Zool. Record, iii. pp. 3-6), to whom, of course, the theory of Mr. Wallace (founded on a strict extension of the principle of Natural Selection, and of which a full abstract is given below) is distasteful; and that theory is met on general grounds.

NATHUSIUS, W. von. Ueber Bildung der Schale des Vogeleies. Zeitschr. für die gesamt. Naturwissensch. 1868, pp. 19-21.

Remarks on the theory and investigations of Drs. Landois (Zool. Record, ii. pp. 85, 86) and R. Blasius (*op. cit.* iv. pp. 76, 77).

RAMSAY, EDWARD P. Notes on Birds breeding in the Neighbourhood of Sydney. Ibis, 1868, pp. 271-280.

In continuation of the series of articles before noticed (Zool. Record, i. p. 65, ii. p. 90, iv. p. 78). The species treated of are *Monarcha trivirgata*, *Pardalotus punctatus*, *Hirundo frontalis*, *Cisticola rupestris*, and *Excalfactoria australis*.

WALLACE, A. R. A Theory of Birds' Nests: showing the Relation of certain Sexual Differences of colour in Birds to their Mode of Nidification. Journ. Travel and Nat. Hist. 1868, pp. 73-89. (Translation) Bibl. Univers. Arch. Sc. Phys. et Nat. 1868, xxxiii. pp. 5-30. (Abstract) Rep. Br. Assoc. Dundee, 1867, Miscell. Comm. p. 97.

The main features, the author argues, of its nidification are determined by the structure and habits of the species, so that a nest is delicate and elaborate in proportion to the organization of the builder. The materials also of the nest depend in like manner on the same properties, and are those which come most frequently before the bird's eyes. But two other causes, or "factors," must not be neglected; these are changed conditions of existence and the influence of hereditary habit; and instances of both are given. Hence many details of nidification must be unintelligible to us as being the results of habit persisting when the necessity for it is removed. Mr. Wallace then points out a relation existing between the plumage of the hen bird and the mode of nidification, and divides nests into two categories according as they conceal or expose the sitting bird, the first containing those of all hole-dwellers, purse-weavers, and dome-builders, which he maintains belong to those of species where the hens are gaily or conspicuously coloured; hence he arrives at the conclusion that the kind of nest included in the first category is a consequence of this brilliant colouring in the hen, as well as the converse, that when the hen is of dull and the cock of bright plumage, the nest is open and the sitting bird exposed. In support of this view he adduces as examples a great many families or natural groups of

birds; thus in the *Psittaci*, *Alcedinidæ*, and *Paridæ*, where the hens are as conspicuous as the cocks, the sitting-birds are concealed, while in the *Cotingidæ*, *Pipridæ*, and *Tanagridæ* the hens are soberly coloured and sit exposed on their nests. The author then proceeds to account for these facts, which he believes are owing to the greater necessity of protection to the hen than to the cock during incubation. He had previously found a similar state of things in diurnal *Lepidoptera*, and this made him apply the same solution in the case of birds. He accepts Mr. Darwin's doctrine of sexual selection to explain the brilliant colours of the males of various animals; but Mr. Wallace maintains that the fact of both sexes in many species being equally ornamental shows that there is a tendency on the part of both to inherit bright hues, and that when they are entirely wanting in the female it is because the possession of them would be injurious to her. Further, he denies, on the grounds already mentioned, that the mode of nidification in birds depends on the colour of the hen, but upholds the contrary opinion; since colour is known to be the most variable and easily modified character possessed by organized beings, consequently it serves more than any other the purposes of protection, and must be regarded as one of the most important agents in adapting animals and plants to the changes ever taking place in their "environment." [*Vide suprâ*, ARGYLL, Duke of, and MURRAY, ANDREW.]

The eggs of some twenty species of South-African birds described. E. L. Layard, *Ibis*, 1868, pp. 242-247.

Steatornis caripensis, its egg figured (woodcut) and described. P. L. Sclater, P. Z. S. 1868, p. 73, 74.

Caprimulgus (Stenopsis) bifasciatus, its eggs figured. J. f. O. 1868, Taf. ii. fig. 3*.

Menura superba, its nest and eggs described. E. P. Ramsay, P. Z. S. 1868, pp. 49-51.

Hirundo alfredi (sp. n.), its eggs figured. J. H. Gurney, *Ibis*, 1868, p. 153, pl. iv. Nest described, E. L. Layard, *tom. cit.* p. 243.

Cisticola schaniicola, its eggs described (*cf.* Zool. Rec. ii. p. 91). W. E. Brooks, *tom. cit.* pp. 130, 131.

Donacola castaneothorax, its nest and eggs described. E. P. Ramsay, *tom. cit.* pp. 231-233.

The curious parallelism of the aberration from the normal colouring in the egg of *Petronia brachydactyla* among the *Fringillinæ*, and in the egg of *Melospiza lincolni* among the *Spizellinæ*, noticed. H. B. Tristram, *tom. cit.* p. 205.

Nucifraga caryocatactes, its breeding in Switzerland. G. Vogel, J. f. O. 1868, p. 329.

Caccabis græca and *C. saxatilis*, the difference in their eggs. H. B. Tristram, *Ibis*, 1868, pp. 213, 214.

* The accompanying letterpress is at page 382, but did not appear within the year 1868.

ACCIPITRES.

BEAVAN, R. O. Sundry Notes on Indian Raptores. Proc. Zool. Soc. 1868, pp. 390-402, pl. xxxiv.

This paper belongs to the series of articles which the author has been publishing in 'The Ibis' (Zool. Rec. ii. p. 72, iv. p. 62, *et supra*, p. 48). Eighty-one species are noticed, and *Neopus malaiensis* (Reinw.) [*see* (Reinh.)] is figured.

BREHM, A. E. Die Raubvögel der deutschen Thiergärten. Journ. für Orn. 1868, pp. 46-51.

In continuation of the paper before noticed (Zool. Rec. iii. p. 72). Notes on *Asur*, *Nisus*, and *Makera*.

FARMAN, O. On some of the Birds of Prey of Central Bulgaria. Ibis, 1868, pp. 406-414.

Thirteen species are noticed, and particulars given of the habits of most of them, especially in the breeding-season. *Vultur monachus*, *Falco sacer*, and *F. lanarius* are among the most remarkable.

WALLACE, ALFRED R. On the Raptorial Birds of the Malay Archipelago. *tom. cit.* pp. 1-27, pl. i.

— Corrections of, and additions to, the Catalogue of the Raptorial Birds of the Malay Archipelago. *Tom. cit.* pp. 215, 216.

The generalities of these papers have been already mentioned ("AUSTRALIAN REGION"). Out of the eighty-seven species enumerated in the first of them, fifty-three belong to *Falconidae* (one of which is described as new), and thirty-five to *Strigidae*. Fourteen of the *Falconidae* are common to the Indian and Australian portions of the Archipelago, but only one of the *Strigidae*. There are no *Vulturidae*. The second paper adds three species (all *Falconidae*) to the eighty-seven, and throws some doubt on the newly described one.

CATHARTIDÆ.

Cathartes californianus, the nestling figured [from apparently an older example than that represented Ibis, 1860, pl. ix.]. S. F. Baird, P. Z. S. 1868, pp. 182, 183.

VULTURIDÆ.

Neophron percnopterus [*sc. ginginianus*] (*cf.* Zool. Rec. ii. p. 91), its mode of breeding in India. H. W. Feilden, Zool. S. S. pp. 1281-1283.

Neophron percnopterus, its occurrence in Essex. O. R. Bree, *tom. cit.* pp. 1456, 1457.

Gypaetus barbatus, its extinction in Transbaikalia. A. von Middendorff, Sib. Reise, Bd. iv. Th. 2, Lief. 1, p. 851.

FALCONIDÆ.

Aquila imperialis, *A. fulvescens*, and *A. naxia*, remarks on their various stages of plumage, with a notice of a fourth doubtful species. W. S. Brooks, Ibis, 1868, pp. 349-352. This fourth species may be *A. hastata*, Leas. J. H. Gurney, *tom. cit.* pp. 352, 353.

Aquila imperialis in Pomerania. W. Lühder, J. f. O. 1868, pp. 352, 353.

Aquila audax is figured. S. Diggles, Orn. Austral. pt. xviii.

Spizaetus nanus is described and figured as a new species from Borneo;

but subsequently it is said to be probably only the young of *S. albioniger* (Blyth, *Madr. Journ.* xxxi. p. 145), which is quite distinct from *S. cirrhatus*. A. R. Wallace, *Ibis*, 1868, pp. 14, 215, 216.

Neopus malacensis is figured. R. C. Beavan, *P. Z. S.* 1868, pp. 896, 897, pl. xxxiv.

Haliaetus albicilla breeds on the coast of Manchouria, lat. 41° N., long. 139° E. J. H. Gurney, *Ibis*, 1868, pp. 129, 130.

Haliaetus leucocephalus, its fishing-habits. S. S. Haldeman, *Am. Nat.* 1868, pp. 615, 616.

Haliaetus vociferator [sc. *vociferoides*] is figured. H. Schlegel & F. P. L. Pollen, *Rech. Faun. Madag.* pl. 15.

Haliaetus leucosternus is figured. S. Diggles, *Orn. Austral.* pt. xvii.

Pandion carolinensis, its habits. A. Fowler, *Am. Nat.* 1868, pp. 192-195.

Leucopternis supercilialis, *L. palliata*, and *L. semipalmatus* are figured, and a synonymic list of the eight known species given. P. L. Selater & O. Salvin, *Ex. Orn.* pls. xxxviii, xlix, and lxi.

Buteo auguralis (*Zool. Rec.* iii. p. 73), its description translated into German. E. von Martens, *J. f. O.* 1868, pp. 67, 68.

Buteo tachardus, its occurrence in Switzerland. G. Vogel, *tom. cit.* p. 329.

Circus epsilonotus, *C. melanoleucus*, and a third species, in colour similar to *C. hudsonius* ♂, are found in the Philippine Islands. J. H. Gurney, *Ibis*, 1868, p. 356.

Circus aeruginosus, adult and immature, is figured (2 pls.). J. Gould, *B. Gr. Br.* pt. xiii.

Cymindis boliviensis is described as a new species from the interior of Bolivia, in size and figure entirely like the Brazilian *C. uncinata*, but with a rather longer beak. It is dusky-black, with the remiges and rectrices banded beneath with white. H. Burmeister, *P. Z. S.* 1868, pp. 633, 634.

Milvus regalis [sc. *ictinus*] is figured. J. Gould, *B. Gr. Br.* pt. xiii.

Falco peregrinus [sc. *melanogenys*] is figured. S. Diggles, *Orn. Austral.* pt. xx.

Falco babylonicus, *F. sacer*, and *F. lanarius* are figured. J. Gould, *B. As.* pt. xx.

Falco candicans and *F. aurantius* are figured. D. G. Elliot, *B. N. Am.* pts. xii. and xi.

Falco eleonora in confinement and its breeding-place at Mogador described. T. Waite, *P. Z. S.* 1868, p. 567.

"*Falco vespertinus* var. *amurensis*, Radde" (*Reis. S. O.-Sib.* ii. p. 102), is now described and figured as a new species, under the name of *Erythropus amurensis*, the subjects of the plate being an adult male and female from Natal (!) and a nestling from Northern China. J. H. Gurney, *Ibis*, 1868, pp. 41-43, pl. ii.

Timunculus cenchris is said to have occurred in Yorkshire. W. S. Dallas, *Ann. & Mag. N. H.* 4th ser. ii. pp. 75, 76. [Very doubtful.]

Asatur (*Leucospiza*) — ? Two specimens from Queensland, supposed to be of a species distinct from *A. rayi* and *A. nova-hollandia* (which the author regards as identical), being of a larger size and stronger build, and having the upper surface brown, are described, but no name is given to it. E. P. Ramsay, *P. Z. S.* 1868, pp. 381, 382.

Accipiter rubicollis, Wall. (*P. Z. S.* 1863, p. 21), and *A. muelleri*, Wall. (*P. Z. S.* 1865, p. 475), are respectively distinct from *A. erythrauchen*, G. R.

Gray (P. Z. S. 1860, p. 344), and *A. griseocularis*, ejusd. (tom. cit. p. 343), with which they have been confounded—the former by both Schlegel (Valkv. Nederl. Ind. pl. iii. fig. 2) and Kaup (P. Z. S. 1867, p. 177), the latter by the last-named writer (tom. cit. p. 175). *A. equatorialis* and *A. cybistris* are also good species. A. B. Wallace, Ibis, 1868, pp. 7–10.

"*Accipiter cruentus*, Wall." (P. Z. S. 1868, p. 484), from Timor, is really *A. torquatus* (Temm.); but *A. torquatus*, Vig. & Horsf., is *Sparvius cirrhocephalus*, Vieill. Whether *A. cruentus* is a good species seems doubtful. *Id.* tom. cit. pp. 11, 12.

Accipiter, sp., from Dauria, of small size, rufescent beneath barred with dusky (cf. Radde, Reis. S. O.-Sib. ii. p. 110). B. Dybowski & A. Parrex, J. f. O. 1868, p. 331.

Accipiter chilensis is figured. P. L. Sclater & O. Salvin, Ex. Orn. pl. xxxvii.

Accipiter gabar has never been found in Portugal as has been asserted of it (Naumannia, 1856, p. 267) under the vague name of "*Astur micronisus*, Bp." A. C. Smith, Ibis, 1868, p. 436.

Nisus communis preying on *Sciurus vulgaris*. K. Müller, J. f. O. 1868, pp. 245, 246.

STRIGIDÆ.

Syrnium fulvescens is a new species from Guatemala, resembling *S. nebulosum* but smaller, more fulvous, and the toes bare except at the upper part of the phalanges. It is *S. nebulosum*, Scl. & Salv. (Ibis, 1859, p. 221), *neq. Strix nebulosa*, Forst. A list of the five American species of the genus known to the authors is given, and it is remarked that species of the genus *Ciccaba* have been much mixed up with them, though the presence of the ear-opercle in the latter affords a ready means of distinguishing between them. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 58, 59.

Athene strenua is figured. S. Diggles, Orn. Austral. pt. xix.

Athene noctua, a variety from Dauria is described, of large size, with tarsi and toes feathered and pale in colour. B. Dybowski & A. Parrex, J. f. O. 1868, p. 331.

Noctua polleni (Zool. Rec. ii. p. 94) is figured. H. Schlegel & F. P. L. Pol-lén, Rech. Faun. Madag. pl. 17.

Micrathene whitleyi (Zool. Rec. iii. p. 75) is figured. D. G. Elliot, B. N. Am. pt. xii.

Gymnoglaux lawrencii is described and figured from Cuba, differing from *G. nudipes* from Porto Rico and the Virgin Islands by being entirely fuscous above, sprinkled with white spots*, and the tarsi almost wholly bare. The two birds were formerly distinguished by Mr. Lawrence (Ann. Lyc. N. H. New York, 1860, pp. 257, 258), who applied the name *nudipes* to the Cuban form, calling the more eastern one *newtoni*. It is, however, clear that the Porto Rico bird must bear the name *nudipes*, the type specimen, still in Paris, having been brought thence by Maugé (Daud., Tr. d'Orn. ii. p. 199); and it is

* The plate represents *G. lawrencii* as being rather reddish-brown than "fuscous;" but specimens from the Virgin Islands also have white spots (cf. Ibis, 1859, pp. 64–66, pl. i., and 1860, p. 209); the difference in the tarsus, shown by the authors in a woodcut, is, however, a perfectly good diagnostic character; and in each of these little Owls, as in many other species, there is no doubt a reddish as well as a fuscous phase, whether owing to age or sex seems to be at present undecided.

accordingly the Cuban bird which required a designation. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 327-329, pl. xxix.

Pholopteryx cusicularia, from La Plata, its habits in confinement. P. L. Sclater, P. Z. S. 1868, p. 261.

Glaucidium siju, its habits in confinement. C. Wright, Am. Nat. 1868, pp. 420-421.

Scops barbarus is a new species from Vera Paz, Guatemala, readily distinguishable from every other American *Scops*, except *S. flammeola*, by its small size. From that it is to be distinguished by the less amount of feathering on the tarsus; and woodcuts showing the difference are given, as well as a list of the seven American species known to the authors. It is *S. flammeola*, Salvin (Ibis, 1861, p. 355), *nec* Kaup. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 56-58. Both species figured, and a complete list of the American species of the genus given. *Id.* Ex. Orn. pls. i., li.

Scops asio, its breeding-habits. E. A. Samuels, Am. Nat. 1868, pp. 47, 48; A. Fowler, *op. cit.* p. 109; W. Wood, *op. cit.* pp. 379, 380. In confinement, C. J. Maynard, *tom. cit.* pp. 73-77. Specifically identical with *S. nœvia*. J. A. Allen, *tom. cit.* 1868, pp. 327-329. The contrary opinion possibly true. W. Wood, *tom. cit.* pp. 370-375.

Scops sorca is figured. J. Gould, B. Gr. Br. pt. xiii.

PSITTACI.

Buxton, C. Acclimatization of Parrots. Zool. S. S. pp. 1395-1401; Ann. & Mag. N. H. 4th ser. ii. pp. 381-386.

Nearly fifty examples have been at large at Northrepps, in Norfolk; but the species are not precisely named. Some of them have bred.

FINSCH, OTTO. Die Papageien, monographisch bearbeitet. Zweiter Band. Hälfte I., II. Mit 5 Tafeln und Uebersichts-Tabellen zur geographischen Verbreitung. Leiden: 1868. Roy. 8vo, pp. 996.

We last year, at some length, though still imperfectly, spoke (Zool. Record, iv. pp. 83-85) of the extraordinary pains bestowed by the author on the first volume of this work. The second volume, published in two parts, justifies the praise we then awarded to him. The subject has been so thoroughly well handled that this monograph must be the text-book for many years; and though we do not altogether agree with Dr. Finsch in his mode of classification, we believe we shall be consulting the convenience of our readers by adopting in the main his system. We shall still continue to regard the *Psittaci* as forming an order, but the (5) different groups defined by the author we shall follow, only raising them from the rank of "sub-families" to that of families, as under:—*Strigopidae**, *Ptilolophidae*, *Aridae**, *Psittacidae*, and *Trichoglossidae*. The genera composing these groups we named last year, and need only remark that, instead of *Coryllis*, Finsch, we shall continue to use the older name *Loriculus*, "barbarous" though it be. In these 26 genera Dr. Finsch places 354 good species†, besides taking notice of 41

* To use *Stringopidae* and *Sittacidae*, as no doubt the author would have us do, seems to us to savour too much of præterpurism.

† That is to say, 351 in the body of the work, and 3 more in the Supplement, which is brought down to 1st June, 1868.

doubtful ones; but of all these a single species only (see *Aridæ*) is described as being entirely new, though several other new names, both generic and specific, are given. A very full Index completes this extremely satisfactory work, and it is greatly to be wished that the five coloured plates were at all equal to the company in which they find themselves.

MILNE-EDWARDS, ALPHONSE. *Mémoire sur un Psittacien fossile de l'île Roderiques*. Rev. et Mag. de Zool. 1868, pp. 7-11.

An abstract of the paper noticed last year (Zool. Record, iv. p. 85).

ARIDÆ.

Palæornis hodgsoni and *P. peristerodes* are names proposed to be given to *P. schisticeps*, Hodgson (As. Res. xix. p. 178), and *P. columboides*, Vigors (Zool. Journ. v. p. 274). O. Finsch, Papageien, ii. pp. 50-52, 74-77.

Palæornis lathamii is the name proposed for *Psittacus erythrocephalus*, var. *γ. borneus*, Gmel. (S. N. i. p. 325), *Palæornis borneus*, Wagl., a species having many other synonyms. *Id. tom. cit.* pp. 68-70.

Geopsittacus (Pezoporus) occidentalis, its habits in confinement (*cf.* Zool. Rec. iv. p. 86), external and internal structure very minutely described, and illustrated with woodcuts of the head, foot, and sternum. *Platycercus* and *Strigops* are the extremes of a Psittacine group, of which *Pezoporus*, including *Geopsittacus*, is the central form. J. Murie, P. Z. S. 1868, pp. 158-165.

Pezoporus formosus is figured. S. Diggles, Orn. Austral. pt. xvi.

Protogeris subcærulea (Lawr. Ann. Lyc. N. York, vii. p. 475) and *B. chrysosoma* (Zool. Rec. i. p. 69) are figured. O. Finsch, Papageien, ii. pp. 97, 107, pls. 2, 3.

Bolborhynchus luchi is a new species, from Bolivia, of a dull grass-green, with the crown, cheeks, chin, throat, and breast grey, free from light tips to the feathers; the under wing-coverts and sides of the belly distinctly olive-yellow. It is *Myiopsitta murinoides*, Souancé (R. Z. 1856, p. 85) and *Conarus murinoides*, G. R. Gray (List B. Br. Mus. *Psittacida*, p. 43), *nec* Temm. *Id. tom. cit.* pp. 121-123.

Platycercus forsteri is the name given to a species from New Zealand, which has been confounded by many writers with *P. pacificus*, this last being proper to Otaheiti. *Id. J. f. O.* 1867, pp. 325, 346; Papag. ii. pp. 287-289.

PSITTACIDÆ.

Pionias obiensis is a new species, from the island of Obi, entirely resembling *P. cyanicollis*, with which it has been confounded by Schlegel (N. T. D. 1866, p. 384), except that it has a copper-brown rump. O. Finsch, Papageien, ii. pp. 389, 390.

Pionias gerontodes is the name proposed to be given to *Psittacus semiloides*, Mass. & Souancé (R. Z. 1854, p. 73). *Id. tom. cit.* pp. 455-457.

Chrysotis guatemala, Hartl., and *Coryllis [sc. Loriculus] erihis* (Schl.) are figured. *Id. tom. cit.* pp. 562, 729, pls. 4, 5.

Coryllis [sc. Loriculus] hartlaubi is the name given to *L. melanopterus*, G. R. Gray (List B. Br. Mus. *Psittacida*, p. 55), *nec* Scop., and *L. apicalis*, G. R. Gray (*op. cit.* p. 56), *nec* Souancé. *Id. tom. cit.* pp. 711-713.

Cyclopsitta coxeni is figured. S. Diggles, Orn. Austral. pt. xix.

TRICHOGLOSSIDÆ.

Domicella schlegelii is the name given to what is possibly *Psittacus squamatus*, Bodd., with which it has been in part identified by Schlegel (Mus. P.-B., *Psittaci*, p. 124). It has also been mentioned under several other names. O. Finsch, Papageien, ii. pp. 792-794.

Domicella fuscata (Blyth) is figured. *Id. tom. cit.* p. 807, pl. 6.

Trichoglossus swainsoni, *T. rubitorques* [lege *rubritorquatus*], and *Lathamus discolor* are figured. S. Diggles, Orn. Austral. pts. xvii., xviii.

PICARIÆ.

PICIDÆ.

GRAY, G. R. List of the Specimens of Birds in the Collection of the British Museum. Part III. Sections III & IV. *Capitonidæ* and *Picidæ*, London: 1868. Sm. 8vo, pp. 23-128.

The object of this work is to give a complete list, with synonyms, of all the known species of these two families, indicating those which are represented by specimens in the Museum.

Picus macræi said (Jerd. B. Ind. i. p. 273) to occur in Ceylon, probably does not do so. E. L. Layard, Ibis, 1868, p. 249.

Picus kham (Zool. Record, ii. p. 96) is *P. syriacus*, Hempr. & Ehrenb. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 287, 288.

Picus (Beopipo) aurantiiventris is a new species from Borneo, distinguishable from all others of the group by the fine orange or golden-yellow of the lower parts. *Id. tom. cit.* pp. 524, 525.

Hemicerous brookianus is described as a new species from Borneo, very like *H. sordidus* from Malacca, but having those parts of a lemon-yellow which are in the latter cream-colour, and the lower parts decidedly olivaceous [cf. Sclater, P. Z. S. 1863, p. 211]. *Id. tom. cit.* pp. 525-527.

Gecinus viridis, on the benefits it confers. — Vincelot, Ann. Soc. Linn. Maine-et-Loire, 1868, p. 117.—Seguier, Bull. Soc. Imp. d'Acclimat. 1868, pp. 524, 525.

Colaptes auratus, an example induced to lay *thirty-three* eggs instead of the normal six [cf. Mag. Nat. Hist. vii. (1834) p. 465]. W. K. Kedzie, Am. Nat. 1868, p. 382.

Melanerpes formicivorus, the method in which this stows its store of acorns (cf. Zool. Record, iii. p. 78, and Ibis, 1868, pp. 116, 117) illustrated by a figure. F. Sumichrast, Mem. Boston. Soc. N. H. i. pp. 562, 563.

Xenopicus albolarvatus is figured. D. G. Elliot, B. N. Am. pt. ix.

TROGONIDÆ.

Trogon bairdi is a fine new species from Costa Rica, above much resembling *T. melanocephalus*, but having a scarlet instead of a yellow abdomen, and a greater extent of white on the tail; the bill also is much larger and stronger. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 119, 120.

BUCCONIDÆ.

Monasa grandior is a new species from Costa Rica and (?) Mosquitia, re-

resembling *M. morphous*, from Brasil, but larger and with a blacker head. P. L. Sclater and O. Salvin, P. Z. S. 1868, p. 327.

MOMOTIDÆ.

Urospatha is a new genus, with the characters of *Momotus* or *Prionites* of recent authors, but having ten rectrices, the bill high, stout, and strongly serrated. The type is

Prionites martii, Spix (Av. Bras. ii. p. 64, pl. 60). [Cf. Ibis, 1869, p. 222.]

ALCEDINIDÆ.

SHARPE, R. B. A Monograph of the *Alcedinidæ* or Kingfishers. London: 1868. Parts i. and ii. Roy. 8vo.

A work of considerable pretension, but one which entirely fulfils all the requirements of such a monograph at the present day. The bibliographical part is worked out with much more than common care, as also are the diagnoses, the descriptions, the particulars of geographical distribution, and, when it can be obtained, the account of the habits of the different species. The plates, eight in each part, are beautiful.

Part i. contains accounts and figures of *Caridonax fulgidus*, *Carcineutes pulchellus*, *Halcyon pileata*, *H. dryas*, *Ceyx cajeli*, *C. wallacii* (vide infra), *Ceryle alcyon*, and *C. superciliosa*. Part ii. in like manner illustrates *Cittura sanghirensis* (vide infra), *C. cyanotis*, *Ceyx lepida*, *C. solitaria*, *C. tridactyla**, *C. melanura*, *Carcineutes melanops*, and *Ceryle cabanisi*. [Cf. Ibis, 1868, pp. 472, 473; 1869, pp. 215, 216.]

— On two new or little-known Kingfishers belonging to the Genera *Ceyx* and *Cittura*. Proc. Zool. Soc. 1868, pp. 270-272, pl. xxvii.

The first is *Ceyx wallacii*, from the Sula Islands, nearly allied to *C. lepida*, with which it has been confounded (Wallace, P. Z. S. 1862, p. 338), but differing from that species in the cobalt instead of ultramarine (or violet) tinge of the blue on the head, cheeks, and back, as well as in the wholly black scapulars and other minor distinctions. A list of the species of *Ceyx* known to the author, eight in number, is given (vide infra).

The second is described and figured as a new species, *Cittura sanghirensis*, from the island of Sanghir, easily distinguished from *C. cyanotis* by its larger size, black forehead, deep blue on the wing-coverts, and the blue-black band on the side of the head.

— On the Genus *Ceyx*. Proc. Zool. Soc. 1868, pp. 587-599.

Ten species of the genus are herein differentiated, being two more than were enumerated by the author in the preceding paper:—*C. diluvyni*, sp. n., and *C. philippensis*, Gould (vide infra). The confusion which has long existed as to the true *C. tridactyla* (Pall.) and *C. rufidorsa* (Strickl.) is also attempted to be cleared up. The paper concludes with a synonymatic, descriptive, and geographical list of the species.

Ceyx philippensis is a new species resembling *C. cyanopectus*, but with a shorter bill, richer colouring, the white patch on the side of the neck larger and purer, without the indigo-blue band, and with the flanks rufous. J. Gould, P. Z. S. 1868, p. 404.

* Corrected in part iii. (1869) to *C. rufidorsa*.

Coryx dillwyni is a new species from Labuan and Borneo, distinguishable from the true *C. rufidorsa* by its scapulars, which are black, washed with blue, instead of lilac-red. It is *C. tridactyla*, Reichenb. (Handb. *Alced.* fig. 3389) and Motley & Dillwyn (N. H. Labuan, p. 13), *nec* Pall., and *C. rufidorsa* Selat. (P. Z. S. 1863, p. 213), *nec* Strickl. R. B. Sharpe, *tom. cit.* pp. 588, 591, 593, 599.

Haleyon orientalis is a new species from Mozambique, nearly resembling *H. fuscicapillus*, but differing in its smaller size and its nearly pure white breast, without any manifest brown streaks. W. Peters, J. f. O. 1868, p. 134.

Ceryle alcyon, its habits. A. Fowler, Am. Nat. 1868, pp. 403-405.

CAPITONIDÆ.

GRAY, G. R. List of the Specimens of Birds in the Collection of the British Museum. [See "*Ficidae*."]

Megalasma lagrandieri is described as a new species from Cochin-China. J. Verreaux, Ann. Sc. Nat. 5 sér. x. p. 67.

RHAMPHASTIDÆ.

Aulacorhamphus sennotatus is a new species, supposed to be from Peru, about the size of *A. hamatopygius*, but differing from that, and also from *A. castaneorhynchus*, in the third rectrix having the chestnut mark at the tip on the inner side only, besides some other characters. J. Gould, P. Z. S. 1868, pp. 219, 220.

BUCEROTIDÆ.

Buceros corrugatus, from Borneo, in confinement. P. L. Sclater, P. Z. S. 1868, p. 261.

Hydrocissa migratoria is the name proposed for a supposed new species from Malacca. — Maingay, Proc. As. Soc. Beng. 1868, pp. 196-198.

Rhynchoceros erythrorhynchus and *Bucorax abyssinicus*, notes on, in North-eastern Africa. E. Marno, Zool. Garten, 1868, p. 240, 241.

UPUPIDÆ.

Fregilupus borbonicus is a name proposed for the extinct [?] *F. varius* (Bodd.), *F. capensis* (Gmel.), *F. madagascariensis* (Shaw). A. Vinson, Bull. Soc. Imp. d'Acclimat. 1868, p. 627.

Upupa epops is figured. J. Gould, B. Gr. Br. pt. xiv.

MUSOPHAGIDÆ.

SCLATER, P. L. Turacoos and their Distribution. Stud. and Intell. Observ. Aug. 1868, pp. 1-6.

Of the same character as the papers on Barbets and Bell-birds noticed last year (Zool. Record, iv. pp. 88, 94), and illustrated by a coloured figure of *Corythaix leucolopha*.

Turacus albocittatus, the colouring-matter of the rosy patches of some of its wing-feathers, before known to be soluble in water, is proved to contain copper. A. Church, Stud. and Intell. Observ. i. p. 161; *Ibid.*, 1868, pp. 133, 134.

CUCULIDÆ.

Cuculus canorus, on the similarity of its eggs to those of the foster-parents chosen for its young: E. F. von Homeyer, J. f. O. 1868, p. 51. Notes on its eggs: A. von Homeyer, *tom. cit.* p. 140. Considerations on Dr. Baldamus's theory as to the colouring of its eggs (Zool. Record. ii. p. 99, iv. p. 89): A. O. Smith, Zool. S. 8. pp. 1105-1118. English translation of Dr. Baldamus's original paper (Naumannia, 1853, pp. 307-326), but without the very necessary plate: *Id. tom. cit.* pp. 1145-1166. Error corrected: E. R. Alston, *tom. cit.* p. 1255. Habits of the species in confinement: J. R. A. Briggs, *tom. cit.* pp. 1209-1211; R. Essery, *tom. cit.* pp. 1480, 1481. The eggs agree in colour with those of its foster-parents: J. A. H. Brown, *tom. cit.* p. 1219. An instance to the contrary: J. Cordeaux, *tom. cit.* p. 1285. The young with other cage-birds: G. Brucklacher, Zool. Garten, 1868, pp. 154, 155. The behaviour of two young in one nest: A. Müller, *tom. cit.* pp. 345-350. Broods its eggs! *Id. (Ade W. Kiesel) tom. cit.* pp. 366-373. On its eggs—additional proof of the author's theory: E. Baldamus, Zeitschr. gesamt. Naturwissensch. 1868, pp. 21-23.

Cuculus (Chrysococcyx) auratus observed feeding its young. M. T. von Heuglin, J. f. O. 1868, p. 212.

Chrysococcyx russata is a new species from Cape York, in size rather smaller than the one or more [*Qu. C. plagosus* aut *C. basalis*?] from the south coast of Australia, but having a stouter bill, like the Port-Essexton *C. minutillus*. It differs, however, from every other species in having the basal portions of the primaries buff beneath. A rufous tint, moreover, pervades the upper surface, the tail is of a deeper rufous, and there are some other distinctive marks. J. Gould, P. Z. S. 1868, pp. 74-76.

CAPRIMULGIDÆ.

Podargus —? Two species of this genus from Queensland are supposed to be new, but no descriptions of them are given, nor are they named. E. P. Ramsay, P. Z. S. 1868, pp. 382, 383.

Egotheles novæ-hollandiæ is figured. S. Diggles, Orn. Austral. pt. xvi.

Steatornis caripensis, its eggs figured (woodcut) and described. P. L. Sclater, P. Z. S. 1868, pp. 73, 74.

Caprimulgus mossambicus is described, for the first time, from Mozambique. It is *C. mossambicus*, Licht., Nomencl. Av. 1854, p. 62 [*nec p. 65 ut cit.*]. It seems to agree with "*C. fossi*, Verr.," Hartl. (Ornith. Westaf. p. 23), in the colour of its tail-feathers, but, according to the description, that has no white or golden-yellow round spots on the tips of the wing-coverts, nor have its secondaries white or yellow tips. W. Peters. J. f. O. 1868, p. 134.

Caprimulgus (Stenopsis) bifasciatus, its eggs figured. J. f. O. 1868, Taf. ii. fig. 3.

Stenopsis candicans, *S. langedorffi*, and *S. platyura*, as also *Antrostomus cor-tapau*, are described as if they were new species; but the first three, though no mention of the fact is made by the author, have been previously described by Mr. Sclater (*cf.* Zool. Rec. iii. p. 82), and the last is confessedly the same as *A. rutilus*, Burm., Syst. Uebers. ii. p. 385. A. von Pelzeln, Orn. Bras. pp. 12, 13, 49-56.

Stenopis macrorhynchos is described as a new species from South América, very like *S. bifasciata*, but smaller, paler above, and with a much larger bill. T. Salvadori, Atti Soc. Ital. Sc. Nat. vol. xi. fasc. iii. 16 Sept. 1868*.

Sootornis nigricans is described as a new species from the Rio Blanco [ga. in Brazil?], nearly allied to *S. longicauda*, but darker. *Id. loc. cit.**

CYPSELIDÆ.

Chatura sclateri is a hitherto undescribed species, from Borba on the Rio Madeira, allied to *C. cinereiventris*, Sclat. (Cat. Am. B. p. 283), but having a dark bluish ash-grey belly, like the lower part of the back and upper tail-coverts. A. von Pelzel, Orn. Bras. pp. 16, 56.

Chatura semicollaris is figured, and a complete list of the American species of the genus given. P. L. Sclater & O. Salvin, Ex. Orn. pl. lii.

TROCHILIDÆ.

Eutoxeres heterura and *E. salomi* are described as new species: the former from Central Ecuador, resembling *E. aquila* from New Granada, but with a uniformly coloured tail, and the pectoral stripes black and white instead of black and buff; the latter from Veragua and Costa Rica, is allied to the former, but with the rectrices tipped with white, and buff-coloured gular stripes. J. Gould, Ann. & Mag. N. H. 4th ser. i. pp. 455-457.

Phaethornis anthophila (Bourc. R. Z. 1843, p. 71) was obtained by Natterer and is described. A. von Pelzel, Orn. Bras. pp. 27, 56.

Ametornis abnormis, named by Reichenbach (J. f. O. 1853, Extrah. p. 14), is fully described. A. von Pelzel, Orn. Bras. pp. 27, 56, 57.

Helopadica xantusi is figured. D. G. Elliot, B. N. Am. pt. xi.

Thalurania tolemus, named by Reichenbach (J. f. O. 1853, Extrah. p. 8), is fully described. A. von Pelzel, Orn. Bras. pp. 56, 57, 58.

Microchera parvirostris (Lawr.) (Zool. Rec. ii. p. 101), the male described. G. N. Lawrence, Ann. Lyc. New York, 1863, pp. 122, 123.

Gouldia melanosternon [lege *melanosternum*] is a new species from Peru, closely allied to *G. langsdorffi* from Brazil, but smaller, and wanting the thoracic band. J. Gould, Ann. & Mag. N. H. 4th ser. i. p. 323.

Trochilus colubris [?], an albino noticed. L. A. Millington, Am. Nat. 1868, p. 110.

Atthis heloise is figured. D. G. Elliot, B. N. Am. pt. xii.

Cephalopis beekii is described as a new species from Brazil, larger than *C. delalandi*, more olive-green above, pure violet beneath, and with a very long ornamental feather at the back of the head. From *C. lodigesi* it differs in the green top of the head, the duller colour of the whole under surface, and some other points. A. von Pelzel, Orn. Bras. p. 58.

Petasophorus cyanotis and *P. thalassina*: a form intermediate between these two occurs in Costa Rica (J. Cabanis, J. f. O. 1862, pp. 162, 163), which, if it be distinct, is proposed to be called *P. cabanisi*. G. N. Lawrence, Ann. Lyc. New York, 1863, pp. 125, 126.

Eriocnemis smaragdinspectus is a new species from Ecuador, closely allied

* We are unable to give the precise reference, having only seen a separately printed copy (kindly sent us by the author) of this paper, in which the original pagination is not preserved.

to *E. vestita* from Bogota; but the green on the breast begins immediately below the blue throat-spot, without the intervention of a black band, and the feathers there are of a different structure. J. Gould, Ann. & Mag. N. H. 4th ser. i. p. 322.

Agyrtria meliphila [qu. *melitophila*?] and *A. media* are doubtfully named as new species procured by Natterer, the first from Barcellos, the second from Matogrosso. *A. melinoga* (Linn.) is also said to have been obtained by the same naturalist on the Rio Branco. A. von Pelzeln, Orn. Bras. pp. 29, 57.

Eupherusa egregia is a new species from Veragua, allied to *E. eximia*, but having the outer webs of the lateral rectrices white. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 389, 390.

PASSERES.

PITTIDÆ.

Pitta similima is a new species from Cape York, very like *P. strepitans*, but smaller, and of a deeper buff beneath (cf. Zool. Rec. iv. p. 91). J. Gould, P. Z. S. 1868, pp. 75, 76.

Pitta berta is a new species from Borneo very like *P. cyanoptera*, but distinguished by its smaller size, the light blue of the rump, the rose-coloured middle of the abdomen, and the little white spot on the first of the remiges only. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 527, 528.

FORMICARIIDÆ.

SCLATER, P. L. Descriptions of some New or little-known Species of Formicarians. Proc. Zool. Soc. 1868, pp. 571-575, pl. xliii.

Five species appear to be described as new, and a sixth referred to a new genus. The author's collection now includes 381 specimens belonging to 178 species of the family.

Thamnophilus nigriceps is a new species from Bogota, small and weakly formed, about the size of *T. dolatus*, and but for its long tail might go with *Dysithamnus*. It is readily distinguishable by its black head and breast, which are marked with white shaft-spots, and rufous wings and tail. P. L. Sclater, P. Z. S. 1868, p. 571.

Thamnophilus jani, De Filippi (Mus. Mediol. p. 32), is the female of *T. navius* (Gm.). T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 274.

Neocantus is a new genus proposed for the reception of *Xenops niger*, Von Pelzeln (Sitz. k.-k. Akad. Wien, 1859, p. 111). It belongs to the Thamnophiline group, of which it has the general appearance, but has the bill compressed and somewhat recurved, the nostrils open, the culmen straight, somewhat sloping, and a little curved at the tip, the edges slightly ascending, the gonys recurved and strongly ascending, the wings short, the fifth, sixth, and seventh remiges nearly equal and longest, the feet as in the smaller species of *Thamnophilus*. The head, wing, and foot are figured (woodcut). P. L. Sclater, P. Z. S. 1868, pp. 571, 572.

Thamniotes affinis, Salvad. (Zool. Rec. ii. p. 101), is *Thamnomanes glaucus*, ♀, Cabanis. P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 175, note.

Heterocnemis simplex is a new species from Surinam, strongly built and

having the divisions of the anterior scutes of the tarsus nearly obsolete. P. L. Sclater, P. Z. S. 1868, pp. 573, 574*.

Myrmetherula minor, Salvad., and *Myrmecina marginata*, ejusd. (Zool. Rec. ii. p. 102), are respectively *M. brevicauda* (Swains.) and *M. ruficauda* (Max.). P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 175, note.

Myrmetherula modesta is a new species from Costa Rica, not much resembling any other. It is about the size of *M. fulviventris* (Zool. Rec. i. p. 74), but has a much narrower and weaker bill, larger wings, and no spots on the wing-coverts. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, p. 108.

Formicivora genai [lege *genæ*], De Filippi (Mus. Mediol. p. 31), is distinct from *F. striata* (Spix), with which it has generally been confounded. *F. erythrocerca*, Scl. (P. Z. S. 1858, p. 240, pl. 97), is synonymous with the former, and the name is of later date. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 268-270.

Cercomacra napensis is a new species from the Rio Napo in Ecuador, distinguishable from *C. cinerascens*, Sclat. (P. Z. S. 1857, p. 131), with which it had been (*op. cit.* 1858, p. 245, and Sclat. Cat. Am. B. p. 184) confounded, by its entirely unspotted wings and less white on the rectrices. P. L. Sclater, P. Z. S. 1868, pp. 572, 573.

Hypocnemis hypoxantha is described and figured as a new species from the Upper Amazon, allied to *H. flavescens* (Zool. Rec. i. p. 74), but with the eyebrows and the whole underside of the body sulphur-yellow. P. L. Sclater, P. Z. S. 1868, p. 573, pl. xliii.

Conopophaga gutturalis is a new species from New Granada, resembling *C. cucullata*, Sclat. (P. Z. S. 1856, p. 29); but that species has no post-ocular tuft and a yellow bill. The present has a white postocular tuft, as in *C. aurita* (Gm.). P. L. Sclater, P. Z. S. 1868, p. 574.

MENURIDÆ.

Menura superba, a very full account of its habits, especially of its mode of breeding, and a description of its young, which do not leave the nest till they are eight or ten weeks old. South-Australian examples (*M. victorie*, Gould†) do not very greatly differ from those obtained in New South Wales, the former being only of a slightly different tint, and having bars of the outer rectrices more defined. The specific rank of *M. alberti* is not questioned. E. P. Ramsey, P. Z. S. 1868, pp. 49-52.

Menura. The family to which this genus belongs still an open question; the eggs and young (two days old) of "*M. victorie*" exhibited. The latter is thickly covered above with a long sooty-black down, which takes the form of a cowl over the bird's head; beneath, the throat, flanks, and thighs are nearly naked; the tarsi, toes, and nails are comparatively non-developed; and from all these facts it is evident that the young must be entirely dependent upon its parents for food and protection for a long time. J. Gould, *tom. cit.* pp. 52, 53.

* It may be doubted whether this species should rightly be included in the present Record, as the remarks upon it refer to the second part of Herr von Pelzel's 'Ornithologie Brasiliens,' which bears date 1869.

† First named P. Z. S. 1864, p. 23, but not diagnosed till 1865, Handb. B. Austral. i. p. 303.

DENDROCOLAPTIDÆ.

"*Furnarius tricolor*, Burm.," is described as a new species from Bolivia. C. Giebel, Zeitschr. gesammt. Naturwissensch. 1868, pp. 11-13.

Synallaxis sulphurifera is described as a new species from Buenos Ayres, having the longer and rather curved bill of *S. striaticeps*, D'Orb., but the broad and long-pointed rectrices of *S. spixi*, Sclat. (P. Z. S. 1866, p. 98). H. Burmeister, P. Z. S. 1868, p. 636.

Synallaxis rufigenis is a new species from Costa Rica, somewhat resembling *S. erythrops*, but with an olive crown and greyish-white chin, besides wanting the pale cinnamon-colour on the throat and breast, and having darker under wing-coverts and a larger bill. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, p. 105.

Oxyrhamphus frater is a new species from Veragua, in colour resembling *O. flammiceps*, but with a longer bill, shorter wings, and much shorter tail. The genus is spoken of as belonging to a family "OXYRHAMPHIDÆ." P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 322, 326, 327.

Sittasomus stictolaemus is a hitherto undescribed species from Borba on the Rio Madeira, where it was obtained by Natterer. A. von Pelzeln, Orn. Bras. pp. 42, 59, 60.

Dendrocincla ruficeps is a new species from the Isthmus of Panama, like *D. homochroa* (Scl. P. Z. S. 1859, p. 382) from Mexico and Guatemala, but larger, with a much stronger bill, and the back tinged with olivaceous. A list of the ten species (of *Dendromanes* and *Dendrocincla* proper) known to the authors is subjoined. P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 54.

Dendrocincla longicauda and *D. minor* are two hitherto undescribed species obtained by Natterer. The first, met with in several localities, is allied to *D. atrirostris* (Lafr. & D'Orb.) (cf. Zool. Rec. i. p. 75), but is larger, and has a much longer tail and a yellow throat. The second, from Sao Vicente, resembles *D. meruloides* (Lafr.), but is smaller, and a yellow streak behind the eye distinguishes it from *D. fumigata* (Light.). A. von Pelzeln, Orn. Bras. pp. 42, 60, 61.

Xiphocolaptes omigrans and *X. major* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. xxxv., xxxvi.

Dendrocolaptes puncticollis is described and figured as a new species from Vera Paz, Guatemala. It resembles *D. picumnus* (Light.) from Brazil, but has a longer, narrower, and paler-coloured bill, the neck spotted with black, and the under wing-coverts ochraceous. It is *D. puncticollis*, Scl. & Salv. (Ibis, 1860, p. 275), nec Eyton (Contr. Orn. 1851, p. 75), which is regarded as *D. validus*, Tschudi. Full-sized woodcuts of the head, bill, and foot are given, as well as a list of the seven species (of *Dendrocoptes* and *Dendrocolaptes* proper) known to the authors. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 54-56, pl. v.

Dendrocolaptes pallescens and *D. concolor* are two hitherto undescribed species obtained by Natterer in Brazil: the first greatly resembles *D. validus* (Tsch.), but the hinder border only of the crown-feathers is dark, and some other differences distinguish it; the second, which in colour vividly resembles *Xiphocolaptes perroti* (Lafr.), seems in many points to agree with *Premnopus undulatus*, Cab., but the markings of the head, neck, and breast are different. A. von Pelzeln, Orn. Bras. pp. 43, 61, 63.

Dendroornis elegans is a hitherto undescribed species, obtained by Natterer

in Brazil, allied to *D. spizi*, Less., and *D. ocellata* (Spix), but differing from the last in the guttate spots on the back, and from both in the triangular spots on the breast and belly. A. von Pelzel, Orn. Bras. pp. 45, 63, 64.

Dendroplex affinis is a hitherto undescribed species, obtained by Natterer in Brazil, very like *D. picus*, but having a somewhat broader (higher) and shorter bill, with the culmen gently decurved, and the ground-colour of the lower part of the belly is grey-brown, with no ochreous tinge. A. von Pelzel, Orn. Bras. pp. 46, 64, 65.

Picolaptes fuscicapillus is a hitherto undescribed species, procured in Brazil by Natterer, resembling *P. albolineatus* and *P. affinis*, Lafr., in form and colour, but differing in size, as well as in the whole-coloured crown and nape. A. von Pelzel, Orn. Bras. pp. 44, 63.

MELIPHAGIDÆ.

Zosterops simplex is a new species from the Pelew Islands. G. Hartlaub, P. Z. S. 1868, p. 117.

Zosterops madagascariensis, *Z. mayottensis*, *Z. hæsitata*, *Z. mauritana*, (lege *mauritanica*), and *Z. borbonica* figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 19 (cf. Zool. Rec. iv. p. 93).

Tephros is a new genus of the *Zosterops*-group, but differs from that genus in the form of the bill, in its rounded tail, and weak narrow rectrices, sub-acuminate at the tip, in its less-pointed wing, and in the want of an eye-ring. It agrees in many points with the West-African *Parusia* and the Indian *Mymnis* and *Fukina*, but is decidedly distinct from them. The type is

Tephros finschi from the Pelew Islands. G. Hartlaub, P. Z. S. 1868, pp. 6, 117, pl. iii.

Glycyphila subfasciata is described as a new species from Queenaland. E. P. Ramsay, P. Z. S. 1868, pp. 885, 886.

Entomyna cyanotis and *E. albipennis* are figured. S. Diggles, Orn. Austral. pt. xviii.

Acanthorhynchus immirostris, *A. superciliosus*, and *A. picatus* are figured. Id. op. cit. pt. xix.

Sphenostoma cristata and *Psophodes crepitans* are figured. Id. op. cit. pt. xx.

NECTARINIIDÆ.

"*Nectarinia albidula* (Morel.)" is the name given to the "Oiseau blanc" of Réunion. A. Vinson, Bull. Soc. Imp. d'Acclimat. 1868, p. 630. [Qu. *Zosterops borbonica* (Bodd.), cf. Ibis, 1868, p. 225.]

Nectarinia ludovicensis is described as a new species from Biballa, West Africa, allied to *N. johannæ*. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1868, p. 41.

CEREBIDÆ.

"*Dænis angelica*, De Filippi," Bp. (Atti IV. Riun. Sc. Ital. 1844, p. 404; Cons. Av. i. p. 400), is *D. cayana* (L.). T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 260-262.

COTINGIDÆ.

Pachyrhamphus albescens, Gould (Zool. 'Beagle,' iii. p. 50, pl. xiv.), is referred to the genus *Elaina*. H. Burmeister, P. Z. S. 1868, pp. 634, 635.

Pachyrhamphus albinucha is described as a new species from Buenos Ayres, of the figure and size of *P. cinereus* (Bodd.), but rather smaller, the bill somewhat slender, and the wings relatively shorter. *Id. tom. cit.* p. 635.

Heteropelma stenorrhynchum is described as a new species from Venezuela, belonging to the group allied to *H. turdinum*, and nearly as large as that species. Beneath it is pale on the throat like *H. wallacii* (cf. Zool. Rec. iv. p. 94), but has indications of transverse markings on the belly. Above it is most like *H. amazonum*, but the bill is narrower and more compressed than in the other allied species. P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 632.

AMPELIDÆ.

Ampelis garrulus supposed to have bred in England [!]. O. Moaley, Zool. S. S. p. 1294. Its occurrence, in April 1867, at Orange, in the State of New York. T. M. Trippe, Am. Nat. 1868, p. 380.

Hypocolius ampelinus, Bp. (Consp. Av. 1850, i. p. 336) comes, not from California, but from Abyssinia, and is identical with *Cebilepyris isabellina*, Heugl. (Sitzungsb. Ak. Wien, 1855-56, xix. p. 284)! Both sexes are described and figured. M. T. von Heuglin, Ibis, 1868, pp. 181-183, pl. 5.

Allotrius xanthochlorus, Hodg., is certainly distinct from *A. melanotis*, Hodg., though they are regarded as identical by Jerdon (B. Ind. ii. p. 246), and referred by him to *A. enobarbus*, Temm. F. Stoliczka, J. A. S. B. 1868, p. 50, note. [Cf. Ibis, 1867, p. 30, and 1869, pp. 111, 112.]

SALVADORI, TOMMASO. Nota intorno al Genere *Prionochilus*, Strickland.

Atti R. Accad. Sc. Torino, 1868, pp. 413-420, pl.

A careful monograph of this genus, to which belong five species, one of them,

P. xanthopygius, from Borneo, being described and figured as new. It is very like *P. percussus*, but has a yellow rump and no white malar spot.

Pardalotus affinis and other species of this genus, further notes (Zool. Record, iii. p. 90) on their plumage, distribution, and habits. E. P. Ramsay, Ibis, 1868, pp. 118, 119.

Pardalotus punctatus, notes on its mode of breeding. *Id. tom. cit.* pp. 272-275.

Pardalotus rubricatus, *P. striatus*, *P. affinis*, *P. melanocephalus*, and *P. uropygialis* are figured. S. Diggles, Orn. Austral. pt. xvi.

Eopsaltria australis, *E. griseocularis*, *E. capito*, and *E. leucogaster* are figured. S. Diggles, Orn. Austral. pt. xix.

TIMALIDÆ.

Garrulax vittatus, De Filippi (Mus. Mediol. p. 31), is *Timalia mitrata*, Müll. T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 270.

Alcippe cinereicapilla and *A. pectoralis* are two new species, from Borneo, both resembling *A. albogularis*, but the former with a flat, muscicapine bill, much beset with bristles at the base, and the latter with the bill less stout, broad, depressed, and furnished with long bristles. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 530, 531.

Cinclosoma cinnamomeus is figured. S. Diggles, Orn. Austral. pt. xvii.

Drymochaeres appears to be intended as the name of a new genus allied to

Brachypteryx, but differing greatly in its colour and markings. No other characters are assigned. The type is

B. (D.) stellatus, a new species from Nepal, to be known from every *Brachypteryx* by the concentric wavy lines of the chest, and the chestnut back, while the "stellations" of the breast render it different from every other bird. J. Gould, P. Z. S. 1868, pp. 218, 219.

Brachypteryx macroptera is described as a probably new species from Borneo, allied to *B. pyrrhogenys*, but not having the sides of the head and neck so distinctly rufous. It also resembles *B. leucophrys*, but has not the flanks rufous. It may, however, be *Turdirostris umbratilis*, Bp., Consp. Av. i. p. 218. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 528-530.

Pterorhinus is a new genus, with the bill approaching that of *Pomatorhinus*, curved, compressed at the culmen, and expanding at the sides, narrowing very gradually to the tip, which is obtuse and without notch; the nostrils are thickly covered with feathers and vibrissæ, more so than in *Garrulax*; the wings short and rounded, fifth, sixth, and seventh quills longest; the tail, of twelve feathers, is moderately long, and has the four outer rectrices graduated; the legs are somewhat slender for the group, more so than in *Leucodioptrum*, with moderate feet and claws. In coloration it resembles *Malacocercus*. The type is

P. davidi, a new species from Northern China. R. Swinhoe, Ibis, 1868, pp. 60, 61.

HIRUNDINIDÆ.

"*Hirundo alfredi*, Hartlaub," is the name given to specimens from South Africa formerly regarded as identical with *H. lunifrons* of North America. With its eggs, it is figured: J. H. Gurney, Ibis, 1868, pp. 152-154, pl. iv. The nest and mode of breeding described: E. L. Layard, *tom. cit.* p. 243.

Hirundo angolensis is described as a new species from Huilla, West Africa, allied to *H. rustica* and *H. cahirica*, but having a dusky ash-coloured abdomen and black under wing-coverts. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1868, pp. 47, 48.

Cecropis [sc. *Hirundo*] *rustica*, a case of bigamy in. R. Meyer, Zool. Garten, 1868, pp. 77, 78.

Cecropis rufula, *C. daurica*, *C. erythropygia*, and *C. hyperythra* are figured. J. Gould, B. As. pt. xx.

Hirundo neoxena and *Atticora leucosternum* are figured. S. Diggles, Orn. Austral. pt. xvii.

Hypurolepis is a new generic name proposed instead of *Herse*, Less., which is preoccupied. To it will belong *Hirundo domicola*, Jerd. (which is figured), *H. frontalis*, Quoy & Gaim., and *H. subfusca*, Gould (P. Z. S. 1856, p. 137), besides, we suppose, *H. tahitica*, Gmel. J. Gould, B. As. part xx.

Delichon nipalensis and *Lagenoplastes fluvicola* are figured. *Id. loc. cit.*

ORIOLIDÆ.

Oriolus notatus is a new species from Mozambique, resembling *O. auratus*. W. Peters, J. f. O. 1868, pp. 132, 133.

Oriolus viridis and *O. flavicinctus* are figured. S. Diggles, Orn. Austral. pt. xvi.

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TYRANNIDÆ.

Euscarthmus impiger is described and figured as a new species from Venezuela, most nearly allied to *E. margaritaceiventris* (Lafr. & D'Orb.), but differing in its olivaceous lower back and the obscure "flammulations" below. P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 171, pl. xiii. fig. 1.

Leptotriccus supercilii is a new species from Veragua, differing from *L. sylvicola* of Brazil in its somewhat larger and rather wider bill, and small but distinct superciliary streak, beginning above the lore and passing to the back of the eye. P. L. Sclater and O. Salvin, P. Z. S. 1868, p. 389.

Anacretes cristatus, Salvad. (Zool. Record, ii. p. 107), is *Serpophaga subcristata* (Vieill.). P. L. Sclater and O. Salvin, P. Z. S. 1868, p. 175, note.

Mionectes olivaceus is a new species from Costa Rica, differing from *M. striatocollis* in wanting the dusky colouring of the forehead, crown, cheeks, and throat of that species, in having the abdomen of a clearer yellow, in being smaller, and having a longer and narrower bill. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, p. 111.

Elainea. To this genus is referred *Pachyrhampus albescens*, Gould (Zool. 'Beagle,' iii. p. 50, pl. xix.). H. Burmeister, P. Z. S. 1868, pp. 634, 635.

Sublegatus is a new genus with the general appearance of *Elainea*, but with the nostrils turned apart, rounded, and entirely open; otherwise the bill is like that of *Legatus*, though more depressed. The gape is beset with a few small bristles. Wings somewhat short, the third, fourth, and fifth remiges equal and longest; the first nearly equal to the ninth, and the second a little longer than the sixth. Tail long and nearly even. Tarsi as in *Elainea*, but stouter. The type is

S. glaber, a new species from Venezuela. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 171, 172, pl. xiii. fig. 2.

Rhynchocyclus cerviniventris, Salvad. (Zool. Rec. ii. p. 107), is *Contopus pallidus* (Gosse). P. L. Sclater and O. Salvin, P. Z. S. 1868, p. 175, note.

Rhynchocyclus griseimentalis is described as a new species from Costa Rica, much like *R. olivaceus* from Brazil, but more yellowish above, with the breast much darker and the middle of the abdomen brighter yellow. It has also a larger bill. The points in which it differs from *R. brevirostris* and *R. mesorhynchus* (the identity of which two species is suggested) are also pointed out. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 112, 113.

Myiobius nelsoni, Sclat. (Zool. Rec. iii. p. 92), is *M. rufescens*, Salvad. (Zool. Rec. ii. p. 107). P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 174, 175.

Empidochanes eulérii, *E. altirostris*, and *E. argentinus* are new species. The first, of which the mode of breeding is described (C. Euler, J. f. O. 1868, p. 184) is from Cantagallo, in Brazil, and much resembles *Myiophobus navius* (Bodd.), except that it wants the yellow crown, and in size as well as in colouring is intermediate between that species and *Muscipeta fuscata*, Max (*E. olivus*, Sclat.). The second is from Cartagena, and has the bill somewhat broad and higher, with the basal third part of the mandible only light coloured, the wings and tail longer, and the top of the head and rump somewhat more olive-coloured, the upper surface being without any reddish-brown admixture. The third is from Buenos Ayres, and is smaller, the bill flatter and shorter, the mandible whitish, the whole upper surface of a more decided

olive-colour without reddish mixture, the characteristic wing-marking narrower, lighter, and less decidedly orange, and the light superciliary streak only strongly marked as a spot in front of the eye. J. Cabanis, J. f. O. 1868, pp. 194-196.

Mitrephorus fulvifrons is figured. D. G. Elliot, B. N. Am. pt. ix.

Myiarchus erythrocerus is a new species from Venezuela, resembling *M. cooperi*, but almost as small as *M. ferax*, with shorter tarsi and much more rounded wings. It is no. 195 of Azara (Apunt. ii. p. 143), and has been variously assigned by other authors to *Tyrannus crinitus*, *T. irritabilis*, and *M. ferax*. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 631, 632.

DICRURIDÆ*.

"*Dicrurus himalayanus*" [cujus?] is said to be a common species between Simla and Mussoorie: R. C. Tytler, Ibis, 1868, p. 200. Referred to *D. longicaudatus*, A. Hay: E. Blyth, tom. cit. p. 355. Described as a new species,

Buchanga waldeni, from specimens procured near Simla. R. C. Beavan, tom. cit. pp. 496, 497.

Dicrurus fugax is a new species from Mozambique, nearly allied to *D. lugubris*, Ehrenb., but with a weaker bill. It differs from *D. ludwigi*, A. Smith, through its more considerable size. W. Peters, J. f. O. 1868, p. 132.

LANIIDÆ.

Lanius excubitor, observations on the habits of an individual of this species, K. Müller, J. f. O. 1868, pp. 178-182. Figured, as also *L. minor* (Zool. Record, iv. p. 98). J. Gould, B. Gr. Br. pt. xiii.

Lanius cephalomelas, Bp. (R. Z. 1853, p. 436), is *L. nasutus*, Scop. (F. & F. Insul. 1786, ii. p. 85), and *L. antiguanus*, Gmel. (S. N. 1788, i. p. 301), besides being possibly identical with *L. nigriceps*, Frankl. (P. Z. S. 1831, p. 117). Ld. Walden, Ibis, 1868, pp. 70, 71.

Lanius jeraopsis, De Filippi (Mus. Mediol. p. 31) (Bp. R. Z. 1853, p. 437), is *L. lucionensis*, L. T. Salvadori, Atti Acc. Sc. Torino, 1868, pp. 272, 273.

"*Lanius dealbatus*, De Filippi," Bp. (R. Z. 1853, p. 289), is certainly not *L. pallidirostris*, Cass. (Proc. Acad. Philad. 1851, p. 244), but is perhaps *L. pallens*, Cass. (loc. cit.); on the other hand, *L. dealbatus*, Bp. (R. Z. 1853, p. 294) (nec De Fil.), and probably *L. pallidus* (Zool. Record, i. p. 78, iv. p. 98), are to be referred to *L. pallidirostris*. Id. tom. cit. pp. 277-279.

Collurio [sc. *Lanius*] *ludovicianus*, remarks on its impaling its prey. E. Coues, Proc. Boston Soc. N. H. xii. pp. 112, 113. [Cf. Ibis, 1869, pp. 118-120.]

Vanga polleni is a new species from Madagascar, belonging to the group *Xenopirostris*, Bp., and descriptions of this and the other three species of the genus, as recognized by the author, are given. H. Schlegel, Rech. Faun. Madag. pp. 173, 174.

* We have to thank Dr. Hartlaub (Bericht u. s. w. p. 160) for pointing out a mistake which occurred in our last Record. The name "*EDOLINÆ*" (Zool. Record, iv. p. 98) should have been omitted, and the paragraph by which it is followed transferred to the opposite page, under "*DICRURIDÆ*."

Rectes tenebrosus is described from a young bird as a new species from the Pelew Islands. G. Hartlaub & O. Finsch, P. Z. S. 1868, p. 6.

Artamus leucorhynchus (Gmel.) and *A. leucogaster* (Valenc.) are both found in Luzon, and the former also in the Pelew Islands. G. Hartlaub and O. Finsch, P. Z. S. 1868, pp. 116, 117.

CAMPEPHAGIDÆ.

Cebblepyris isabellina, Heuglin (Sitzungsb. Ak. Wien, 1855-56, xix. p. 284), is identical with *Hypocolius ampelinus*, Bp. (Consp. Av. 1850, i. p. 336)! M. T. von Heuglin, Ibis, 1868, pp. 181-183, pl. 5.

Cebblepyris luctuosus, De Filippi (Mus. Mediol. p. 31), is the male of *Pericrocotus cinereus*, Lafr. (R. Z. 1845, p. 94), and the latter name has priority. T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 271.

Oriolia (*Artamia*) *bernieri*, Is. Geoffr. (Zool. Record, iv. p. 98), is the young of *Artamia leucocephala* (L.). A. Grandidier, R. Z. 1868, p. 48 (cf. Zool. Record, iv. p. 99).

Artamia (sc. *Cyanolanius*) *bicolor*, a beautiful series of figures, showing its different phases of plumage, is given. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 24.

Artamia viridis is figured. *Ibid.* op. cit. pl. 27.

Volvocivora borneensis is a new species, from Borneo, very like *V. fimbriata*, but smaller. It has been taken for that species by Sclater (P. Z. S. 1863, p. 218) and Hartlaub, *partim* (J. f. O. 1865, p. 161). T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 532, 533.

MUSCICAPIDÆ.

Cyornis beccariana is a new species, from Borneo, differing from *C. banyumas* in not having the black lores and chin, but light rufous, and in having a larger and comparatively narrower bill. It cannot be confounded with *C. rufifrons* (Zool. Record, ii. p. 110), as that has a rufous forehead and a bluish-black chin. T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 533.

Ophryzone is a new genus proposed for the reception of *Arses kaupi*, its chief character being the enlargement of the eyelid into a narrow flat rim, crenulated [*qu.* crenellated?] on its outer margin. E. P. Ramsay, P. Z. S. 1868, pp. 383, 384.

Myiagra latirostris, *Machærorhynchus flaviventer*, *Piezorhynchus nitidus*, and *Seisura inquieta* are figured. S. Diggles, Orn. Austral. pt. xx.

Muscipeta mutata (Zool. Record, ii. p. 110, *sub nom.* *Tchitres mutata* et all.), a beautiful series of five figures, showing its various phases of plumage, is given. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pls. 20, 21.

Muscipeta borbonica (♂ & ♀) is figured. *Ibid.* op. cit. pl. 22.

Lanius (!) [sc. *Calicalicus*] *madagascariensis* is figured. *Ibid.* op. cit. pl. 27.

Rhipidura lepida is a new species from the Pelew Islands, allied to *R. torrida*, Wallace (Zool. Record, ii. p. 110), but certainly different. G. Hartlaub & O. Finsch, P. Z. S. 1868, pp. 6, 117.

Hyloterpe rodolphi is described as a new species from Cochin China. J. Verreaux, Ann. Sc. Nat. 5e sér. x. p. 67.

Myiagra erythropis is a fine new typical species from the Pelew Islands. G. Hartlaub & O. Finsch, P. Z. S. 1868, pp. 6, 7, 117.

MNIOTILTIDÆ.

TRIPPE, T. MARTIN. Our Warblers. Am. Nat. 1868, pp. 169-183.

Notes on the habits of some of the North-American species, chiefly of this family.

Helminthophaga lucia is figured. D. G. Elliot, B. N. Am. pt. xi.

Basileuterus griseiceps is a new species from Venezuela, belonging to the same group as *B. mesochrysus* (cf. P. Z. S. 1865 *, p. 284), but at once distinguishable by its grey head. P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 170.

Basileuterus melanotis is a new species, from Costa Rica, differing from all the allied species in the decided black colouring behind the eye, in the supra-ocular stripe being of a clear ash-colour without tinge of yellow or green, and in its paler plumage beneath. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 95, 96.

CINCLIDÆ.

Hydrobata —, a supposed new species, which might be the young of *H. cashmirensis*, but it is too small, is described from Rotegurh on the Sutlej, but left unnamed. F. Stoliczka, J. A. S. B. 1868, p. 33. [Cf. Ibis, 1869, p. 212.] The genus *Hydrobata* [sc. *Cinclus*] referred to the neighbourhood of the *Motacillidæ* rather than that of the *Turdidæ*. *Id. loc. cit. et p.* 48.

TURDIDÆ.

Turdus ruficollis, *T. fuscatus*, and *T. naumanni*: notes on these species. The entire want of any red on the wings, breast, or middle rectrices distinguishes the first from the other two. Critical remarks on the figures given by Naumann, Von Middendorff, and Radde, with a comparative table of dimensions of specimens of all three, are appended. E. von Homeyer, J. f. O. 1868, pp. 170-179. [Cf. Ibis, 1863, pp. 195-198.]

Turdus pelios occurs in Dauria. B. Dybowski and A. Parrex, J. f. O. 1868, p. 333. [Qu. *T. pelios*, Hartl. Orn. Westafr. p. 75 ?]

Turdus pilaris breeding in Bavaria. A. J. Jäckel, Zool. Garten, 1868, pp. 374, 375.

Turdus nanus said to have occurred in Massachusetts: E. A. Samuels, Am. Nat. 1868, p. 218. In New Jersey, T. M. Trippe, *tom. cit.* p. 380. The first referred to *T. swainsoni* and the last probably to *T. pallasi* J. A. Allen, *tom. cit.* pp. 488, 489†; E. Coues, Proc. Essex Inst. v. p. 64.

Turdus naevius has occurred near Boston, Mass. *Id. loc. cit.*

Melanotis hypoleucus is figured. P. L. Sclater and O. Salvin, Ex. Orn. pl. xliii.

Harporhynchus cinereus is figured. D. G. Elliot, B. N. Am. pt. x.

Oreocinclia lunulata is figured. S. Diggles, Orn. Austral. pt. xvii.

Chætops aurantius is described as a new species from the Cape Colony. E. L. Layard, B. S. Afr. (1867) p. 126. Not recognized as distinct from *C. frenatus*. G. Hartlaub, Bericht u. s. w. p. 193.

* Not "1866," as stated by the authors.

† This author herein refers to a paper by him, which we have not seen, as in course of publication in the Memoirs of the Boston Society of Natural History (i. pp. 508 *et seqq.*).

Crateropus hartlaubi is described as a new species from Huilla. J. V. Barboza du Bocage, Journ. Sc. Lisboa, 1868, p. 48.

Andropadus oleaginus is described as a new species from Mozambique. W. Peters, J. f. O. 1868, p. 133.

Copsychus pica (♂, ♀, & juv.) is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 29.

Pericrocotus cinereus, Lafr. (R. Z. 1845, p. 94), is the female of *Cebblepyris luctuosus*, De Fil. (Mus. Mediol. p. 31), but the former name has priority; and to this species also should perhaps be referred *P. modestus*, Strickl. (Ann. & Mag. N. H. xix. p. 131), as well as "*P. modesta* (Boie)," Bp. (Consp. Av. i. p. 357). T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 271.

SYLVIIDÆ.

Sazicola capistrata (Zool. Rec. ii. p. 113) is the young male of *S. picata*, Blyth. Notes on *S. atrogularis*, *S. cenanthe* (ex India), and *S. leucoroides* are added. A. Hume, Ibis, 1868, pp. 233-235.

Sazicola cenanthe is figured. J. Gould, B. Gr. Br. pt. xiv.

Pratincola indica, Blyth, is identical with *P. rubicola* (L.). A. von Pelzeln, J. f. O. 1868, p. 27; Ibis, 1868, p. 309.

Pratincola rubetra preyed upon by *Lacerta agilis*. F. Schwaitzer, J. f. O. 1868, pp. 66, 67.

Callene albiventris (Zool. Rec. iv. p. 102) is figured. J. Gould, B. As. pt. xx.

Accentor alpinus and *A. modularis* are figured. J. Gould, B. Gr. Br. pt. xiii.

Cichladusa arquata (Zool. Rec. i. p. 80, ii. p. 113) and *C. guttata*, Heugl., are fully described and figured. M. T. von Heuglin, Ibis, 1868, pp. 280-282, pl. ix.

Acrocephalus stentorius (Hempr. & Ehrenb.) is not so "unknown" a species as was thought by Mr. S. S. Allen (Zool. Rec. i. p. 80), as it was many years ago recognized by Dr. Cabanis (J. f. O. 1854, p. 445) and Bonaparte (R. Z. 1855, p. 75). Its nest and eggs are described and figured from examples taken by Dr. von Heuglin. J. Cabanis, J. f. O. 1868, pp. 135-137, Taf. ii. figs. 1, 2.

Calamodyta newtoni is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 28.

Calamodyta doriae is described as a new species, from Borneo, greatly resembling *C. aquatica*, but much larger, with the bill and legs smaller and less stout, the tail differently coloured and no median line on the crown. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 531, 532.

Psamathia is a new genus of the *Calamoherpe*-group. The feet are the same as in *Calamoherpe*, but the bill is weaker and more slender, and the wings are very different (resembling apparently those of *Arundinax*), having the fourth instead of the third quill longest, and the second and third, instead of the second and sixth, nearly equal. The tail has only ten rectrices, instead of twelve as in *Calamoherpe* or *Tatare*. The type is

Psamathia anne, a new species from the Pelew Islands. G. Hartlaub & O. Finsch, P. Z. S. 1868, pp. 5, 116, pl. ii.

Salicaria italica, De Filippi (Mus. Mediol. p. 30), is the true *Motacilla hypoleais* of Linnæus, and is distinct from *S. hypoleais*, De Fil., which is *Sylvia polyglotta*, Vieill. T. Salvadori, Atti Accad. Sc. Torino, 1868, p. 268.

Acanthis inornata, *A. lineata*, *A. pyrrhopygia*, *A. chrysorrhea*, *A. reguloides*, and *A. diemensis* are figured. S. Diggles, Orn. Austral. pt. xvii.

Sylvia doriae (Zool. Rec. ii. p. 114) is *S. delicatula*, Hartl. (Ibis, 1869, p. 340, pl. x. fig. 1). T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 290, 291.

S. cinerea, var. *persica* (Zool. Rec. ii. p. 115) is *Curruca affinis*, Blyth, J. A. S. B. xiv. p. 564, note. *Id. tom. cit.* p. 291.

Cisticola schaniicola, notes on its breeding in India (*cf.* Zool. Rec. ii. p. 91). W. E. Brooks, Ibis, 1868, pp. 130, 131.

Drymæca (P) *pekinensis* is a new species, from Northern China, apparently very like *Suya*, but having *twelve* instead of *ten* rectrices: R. Swinhoe, Ibis, 1868, pp. 61, 62. Referred to the genus *Amytis*: J. P. Verreaux, *tom. cit.* p. 499.

Drymæca bivittata is described as a new species, from Mozambique, allied to *D. affinis*, A. Smith, but easily distinguishable by the white supraorbital streaks extending from the bill, and the want of the white tip to the tail. W. Peters, J. f. O. 1868, pp. 131, 132.

Drymæca ellisia [*sc. Ellisia madagascariensis* (Lath.), *E. typica*, Hartl.] is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 28.

Drymæca anchietæ is described as a new species, from Biballa, West Africa, allied to *D. fortirostris*, *D. robusta*, *D. erythrogenys*, and *D. navia*. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1868, p. 41.

Drymoipus verreauxi is a supposed new species, from Dacca, which Dr. Jerdon thinks may probably be identical with *Graminicola bengalensis* (B. Ind. ii. p. 177).

Cisticola isodactyla and *C. procera* are described as new species from Mozambique, the former allied to *C. levaillanti*, A. Smith, but without spots on the head and having the inner toe not longer than the outer. W. Peters, J. f. O. 1868, p. 132.

Phylloscopus —, a supposed new species, from Nachar, in the North-west Himalaya, in general colour resembling *P. rama*, but decidedly smaller, is described, but left unnamed. F. Stoliczka, J. A. S. B. 1868, p. 46. [*Cf.* Ibis, 1869, p. 211.]

"*Regulus himalayensis*, Blyth" [*ubi?*], is identical with *R. cristatus* (L.) A. von Pelzeln, J. f. O. 1868, p. 26; Ibis, 1868, p. 308.

MOTACILLIDÆ.

Anthus spinoletta, its occurrence in Devonshire. J. Gatecombe, Zool. S. S. p. 1254. Confounded with *A. petrosus*, E. Newman, *tom. cit.* p. 1255.

Anthus ricardi, its occurrence in Kent. C. Gordon, *tom. cit.* p. 1458. At Scilly, E. H. Rodd, *loc. cit.* In Sussex, G. D. Rowley, *tom. cit.* p. 1478.

Anthus rufescens, its occurrence at Scilly. E. H. Rodd, *tom. cit.* p. 1458.

Calobates sulphurea (in summer and winter) is figured (2 pls.). J. Gould, B. Gr. Br. pt. xiii.

Budytes rayi and *B. flava* are figured. *Id. op. cit.* pt. xiv.

TROGLODYTIDÆ.

"*Campylorhynchus pallidus*, Burm.," is described as a new species from Bolivia. C. Giebel, Zeitschr. gesamt. Naturwissensch. 1868, pp. 13, 14.

Odontorhynchus is a new genus, allied to *Campylorhynchus* and *Heleodytes*,

but differing from both in the strong tooth at the tip of the bill and the strong curvature of the maxilla. The cross-bandings of the tail call to mind the more normal *Troglodytinae*. The type is

O. cinereus, a hitherto undescribed species obtained by Natterer in Brazil. A. von Pelzeln, Orn. Bras. pp. 48, 67, 68.

Cyphorhinus (Microcerculus) cinctus is a hitherto undescribed species obtained by Natterer in Brazil. A. von Pelzeln, Orn. Bras. pp. 47, 65, 66.

Thryothorus minor is a hitherto undescribed species obtained by Natterer on the Rio Guaporé, resembling *T. leucotis*, Lafr., but smaller, greyish olive-brown above with very little reddish tinge, and beneath rust-yellow, except the white middle of the breast. *Troglodytes audax*, Tsch., also comes near it, but differs in its barred back. A. von Pelzeln, Orn. Bras. pp. 47, 66, 67.

CERTHIIDÆ.

Certhia familiaris is figured. J. Gould, B. Gr. Br. pt. xiii.

Salpornis spilonota is figured. Id. B. As. pt. xx.

SITTIDÆ.

Sitta cæsia, its supposed occurrence in Ireland, where it has not hitherto been known. Ld. Clifton, Zool. S. S. p. 1134.

PARIDÆ.

Parus commixtus is the name proposed for the common form of Titmouse from the Tingchow Mountains, north-east of Amoy, which partakes of the appearance of *P. cinereus* from Malacca and *P. minor* from Japan. R. Swinhoe, Ibis, 1868, pp. 63, 64.

Parus atricapillus, its habits. A Fowler, Am. Nat. 1868, pp. 584-587.

Parus montanus is figured. G. D. Elliot, B. N. Am. pt. ix.

"*Parus pekinensis*, A. David," is described as a new species from Northern China. J. Verreaux, Ann. Sc. Nat. 5e. sér. x. p. 67.

Melaniparus semilarvatus (Zool. Rec. iii. p. 97), its description translated into German. E. von Martens, J. f. O. 1868, p. 68.

Melanochlora sultanea is figured. J. Gould, B. As. pt. xx.

Egithaliscus anophrys is described as a new species from the Tingchow Mountains, north-east of Amoy: R. Swinhoe, Ibis, 1868, pp. 64, 65. Identical with *Psaltia concinna*, Gould (B. As. part vii. 1855), from Chusan: J. Gould, tom. cit. p. 250.

SHARPE, R. B. On the genus *Acredula*. Ibis, 1868, pp. 295-302.

A very good monograph. Six species are differentiated, of which the author has seen all but one. *Parus caudatus*, auctt. Britt., is separated from *P. caudatus*, L., under the name of *A. rosea* (Blyth, White's N. H. Selb. 1836, p. 111, note), and no doubt with as much justice as many other 'species' have been. The synonymy and diagnoses are carefully treated.

TANAGRIDÆ.

Chlorophonia frontalis, *C. longipennis*, and *C. occipitalis* are figured. P. L. Selater & O. Salvin, Ex. Orn. pls. xli. & xlii.

Calliste sclateri, Cabanis (Zool. Rec. iii. p. 98, nec Lafresnaye, R. Z. 1854,

p. 207), is figured and renamed *C. cabanisi*. P. L. Sclater, *Ibis*, 1868, pp. 71, 72, pl. iii.

Pyrranga testacea is a new species from Veragua, very like *P. hepatica*, but much smaller and of a deeper colour. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 388, 389.

Pyrranga aestiva [?] has occurred for the first time in Trinidad. H. Kelsall, Proc. Sc. Ass. Trinidad, 1868, pp. 208, 209.

Phenicothraupis carmioli is a new species, from Costa Rica, which (if the specimens be rightly marked males) has a very abnormal coloration, the head and back being of a uniform clear green, and no indication of a crown-spot; beneath it is yellowish, without any tinge of fulvous-brown. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, p. 100.

Tachyphonus phæniceus and *T. delattrii* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. xxxiii., xxxiv.

Chlorospingus hydropneus is a new species from Veragua, resembling *C. flavigularis*, but smaller, dusky beneath, and with the middle of the throat white. P. L. Sclater and O. Salvin, P. Z. S. 1868, p. 389.

Xenospingus (Zool. Rec. iv. p. 106) is referred to *Fringillida*. *Ibid.* tom. cit. pp. 173, 174.

PLOCEIDÆ.

Hyphantornis mariquensis (A. Smith, Zool. S. Afr. ii. pl. 103) ♂ *vest. nupt.* is figured. J. H. Gurney, *Ibis*, 1868, p. 466, pl. x.

Hyphantornis olivaceus (Hahn, Vög. As. Lief. 6, fig. 4), its intricate synonymy, according to Dr. Hartlaub's views, is given. *Id.* tom. cit. pp. 161, 162.

Hyphantornis auricapillus (Swains.) is only a small race of *H. capitalis* (Lath.). Small races also of *H. capensis* (Smith), *Ploceus capensis* (L.), *P. oryx* (L.), and *Estrela astrild* (L.) also occur in the Cape Colony. E. L. Layard, *Ibis*, 1868, p. 246, 247.

Hyphantornis cabanisi is described as a new species, from Mozambique, allied to *H. capitalis*, but smaller. W. Peters, J. f. O. 1868, p. 133. [Qu. = *H. auricapillus* ut *suprà* ?]

Hyphantornis æthiops (Zool. Rec. iv. p. 107) is *H. velata* (Vieill. Encl. Méth. p. 701). O. Finsch, *tom. cit.* pp. 166, 167.

Hyphantornis axillaris, Heugl. (J. f. O. 1867, pp. 381-383), is no doubt *H. badia*, Cassin (Proc. Ac. N. Sc. Philad. 1850, p. 57). *Id.* tom. cit. pp. 167, 168.

"*Hyphantornis vitellina* (Licht.)," Heugl. (J. f. O. 1867, pp. 384, 385), *H. erythrophthalma*, Heugl. (*tom. cit.* pp. 386, 387), and *H. (Textor) atrogularis* (Zool. Rec. i. p. 84) are respectively identical with *Xanthophilus sulfureus*, Reichenb. (Singvög. p. 84, fig. 313), *H. (Ploceus) mariquensis* (*ut suprà*), and *H. (Ploceus) tæniopterus*, Reichenb. (Singvög. p. 78, figg. 281, 282). *Id.* tom. cit. pp. 168, 169.

Hyphantornis aurifrons (Temm.) and *H. concolor* (Zool. Rec. iv. p. 107) are respectively synonymous with *Icterus olivaceus*, Hahn (Vög. As. Afr. u. s. w., 1822, vi. Taf. 4), and "*H. aurea*, Natt.," Hartl. (J. f. O. 1860, p. 180). *Id.* tom. cit. p. 169.

Obs. Several other identifications of species of this genus are also made by Dr. Finsch in the careful paper just cited.

Philagrus pectoralis is described as a new species, from Mozambique, in size and appearance allied to *Plocepasser melanorhynchus*, but having the

region behind the eye and round the ear ferruginous, and the breast spotted with dusky. W. Peters, *tom. cit.* p. 133.

Ploceus, *Vidua*, and *Amadina*, a list of the species of these genera, in a comprehensive sense, which are commonly kept as cage-birds, is given. F. Schlegel, Zool. Garten, 1868, pp. 257-260, 280-292, 321-328, 353-360, 389-397.

Estrela paludicola ♀ and *E. rhodopsis* ♂, Heugl. (J. f. O. 1863, p. 166), are figured. The last is placed in a subgenus, *Rhodopyga*, of which the characters given are, tail somewhat graduated and short, upper tail-coverts red. M. T. von Heuglin, J. f. O. 1868, pp. 9, 13, Taf. i. figs. 2, 3.

Sporoginthus miniatus, Heugl. (J. f. O. 1863, p. 167), is *Amadina sanguinolenta*, Lefebvre (Voy. Abyss. Ois. p. 174), and, being regarded as the eastern form of *Estrela subflava* (Vieill. N. Dict. H. N. xxx. p. 575), is now called *E. subflava orientalis*. *Id. tom. cit.* pp. 11-13.

Habropygga rara, Antin. (Zool. Rec. i. p. 84), is figured and referred to *H. hypomelas*, Heugl. (J. f. O. 1864, p. 252), with which also *Estrela melanogaster*, Heugl. (*op. cit.* 1863, p. 273) (*nec Swains.*), is identical. *Id. tom. cit.* pp. 13, 14, Taf. i. fig. 4. [So far as we can judge, Dr. Antinori's name has priority of publication.]

Estrela rhodopareia appears to be described as a new species from the Bogos country, but it may possibly be *Fringilla senegala*, Linn. *Id. tom. cit.* p. 16.

Lagonosticta nigricollis is figured. *Id. tom. cit.* Taf. i. fig. 1.

Lagonosticta minima, notes on its breeding and the nestling-plumage. K. Russ, *tom. cit.* pp. 328, 329.

"*Estrela carmelita*, Hartlaub," from Natal, is described as a new species. J. H. Gurney, Ibis, 1868, pp. 46, 47.

Estrela quartinia, Bp. (Consp. Av. i. p. 461). Two specimens, referred with doubt to this species, originally described as from Abyssinia, obtained in West Africa. J. V. Barboza du Bocage, Journ. Sc. Lisboa, 1868, p. 44.

Estrela bella, *E. oculo*, *E. annulosa*, *E. bichenovi*, and *E. modesta* are figured. S. Diggles, Orn. Austral. pt. xviii.

Munia similis is described as a new species, from the lower ranges of the North-west Himalaya, like *M. malabarica*, but distinctly more rufescent, and proportionally longer claws, besides being perhaps a trifle larger. F. Stoliczka, J. A. S. B. 1868, pp. 56, 57. [Identified with *M. undulata* (Lath.). *Ld. Walden*, Ibis, 1869, p. 211.]

Donacola castaneothorax, its habits, nest, eggs, and young described. E. P. Ramsay, Ibis, 1868, pp. 231-233.

FRINGILLIDÆ.

Pheucticus tibialis (Zool. Rec. iv. p. 107) is figured. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 177, 178, pl.

Cardinalis plumbeus, *Pyrgisoma leucote*, and *P. rubricatum* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. lxiii, lxiv.

Xenospingus (*cf.* Zool. Rec. iv. p. 106) is considered to be a Fringilline form allied to *Phrygilus*. Woodcuts of the head and wing of *X. concolor* and diagnoses of its sexes are given. *Ibid.* P. Z. S. 1868, pp. 173, 174.

Zonotrichia quinquestrata is a new species from Mexico, differing in some respects from other members of the genus: for instance, the wings are short and much rounded; the third, fourth, and fifth primaries are equal and longest; the second only slightly shorter, the first .35 inch shorter than the longest, and longer than in normal *Zonotrichia*; the tail is short and slightly rounded, with no markings on the outer rectrices. It has five white lines originating from the bill, and therein somewhat resembles *Z. mystacalis*, from which it is to be distinguished by the bright reddish-brown rump and stripes on the head and interscapulars. *Iid. tom. cit.* pp. 323, 324.

Peucaea notosticta is a new species from Southern Mexico, resembling *P. boucardi*, but with the sides of the crown reddish-brown streaked with black, and the upper part of the back with black stripes. A list of the five species known to the authors is added. *Iid. tom. cit.* pp. 322, 323.

Fringillauda sordida is a new species from the Baralatae Pass and near Padam, in the North-west Himalaya. F. Stoliczka, J. A. S. B. 1868, p. 68, [Cf. Ibis, 1869, p. 211.]

Pyrgisoma cabanisi and *P. kieneri* are carefully differentiated. The first is from Costa Rica, and resembles *P. biarcuatum*, having the side of the head chestnut, and a black pectoral spot. The second is from Western Mexico (?), and resembles *P. rubricatum*, but has a thicker bill, stouter feet, and is more brownish above. A list of the five species of the genus known to the authors is added. P. L. Selater and O. Salvin, P. Z. S. 1868, pp. 324-326.

Spermophaga niveoguttata is a new species from Mozambique, very nearly resembling *S. margaritata*, Strickl.; but that has rose-coloured spots on the belly, while in the present they are snow-white. W. Peters, J. f. O. 1868, p. 183.

Petronia brachydactyla, Bp. (Consp. Av. i. p. 518) is figured and its habits and eggs are described: H. B. Tristram, Ibis, 1868, pp. 205, 206, pl. vi. Occurs also in the Abyssinian coast-district: M. T. von Heuglin, J. f. O. 1868, pp. 79, 80.

Passer rufpectus, Bp. (Consp. Av. i. p. 500) is either *P. salicarius* or *P. italicus*; and *P. rueppelli*, Bp. (tom. cit. p. 510), is probably *Plocene superciliosus*, Rüpp. M. T. von Heuglin, J. f. O. 1868, p. 85.

Passer domesticus, its acclimatization in North America: T. M. Brewer, Am. Nat. 1868, p. 229. Figured as an American naturalized citizen: D. G. Elliot, B. N. Am. pt. xii.

Passer salicarius, notes on its occurrence in India. A. Hume, Ibis, 1868, pp. 240, 241.

Fringilla (Citrinella) melanops is described as a new species from near Gondar, nearly allied to *Serinus citrinelloides*, Rüpp. (Neue Wirbelth. Taf. 34. fig. 1), but differing in the absence of the blackish streaks on the breast, the circumscribed black face, the blackish striulations on the upper tail-coverts, and the somewhat longer tail. M. T. von Heuglin, J. f. O. 1868, pp. 92, 93.

Fringilla canaria, its various domesticated breeds. C. Darwin, Anim. and Pl. under Domestic. i. p. 295.

Serinus canarius, a note on a talking example. W. Lühder, J. f. O. 1868, pp. 214, 215, 284, 285.

Fringilla serinus, on the history of its extension in South Germany.

— Jäckel, Zool. Garten, 1868, pp. 405–408. [Cf. Zool. Rec. iv. p. 109, *sub nom.* Serini luteoli.]

Serinus aurifrons (Zool. Rec. i. p. 86), male and female figured. H. B. Tristram, Ibis, 1868, pp. 207, 208, pl. vii.

Serinus flavifrons (Zool. Rec. iv. p. 109) is now said to be identical with *Crithagra chrysopyga*, Swains. (B. W. Afr. i. p. 274), and also with *S. aurifrons*, Heugl. (Sitzungsb. k. Ak. Wien, 1866, p. 293, *descr. null.*), *nec* Tristram *ut supra*. M. T. von Heuglin, J. f. O. 1868, pp. 95, 96.

Crithagra chrysopyga, Antin. (Cat. Ucc. Afr. p. 75) (*nec* Swains. *ut supra cit.*), is *C. barbata*, Heugl. (Zool. Rec. i. p. 84, *nec ut cit.* J. f. O. 1868, p. 284), and is referred to the genus *Serinus*. *Id. tom. cit.* pp. 96, 97.

Crithagra crassirostris and *C. mossambicana* are described as new species from Mozambique, allied to *C. chrysopyga*; but the former is larger, with the outer part of the tip of the lateral rectrices paler, while the latter has the remiges not paler at the tip, the tail with a white-coloured margin, the inner part of the tip of the lateral rectrices being paler. W. Peters, J. f. O. 1868, pp. 133, 134.

Fringilla chloris, breeding in the hole of a pollard willow. A. von Ho-meyer, J. f. O. 1868, p. 285.

Heperiphona affinis is figured. J. Gould, B. As. pt. xx.

Leucosticte giglioli is a new species from Dauria, resembling *L. arctoa* in the red frontal feathers (which serve to distinguish it from *L. griseinucha*, *L. tephrocotis*, *L. brandti*, and *L. brunneinucha*), but differing from it in not having the remiges, rectrices, and tail-coverts white mixed with grey. T. Salvadori, P. Z. S. 1868, pp. 579, 580, pl. xlv.

Leucosticte griseonucha is figured. D. G. Elliot, B. N. Am. pt. x.

Linota cannabina is figured. J. Gould, B. Gr. Br. pt. xiv.

Linota pygmæa is a new species from Ladak and Bissahir, considerably smaller than *Meloporeia pusilla*. F. Stoliczka, J. A. S. B. 1868, p. 62. [Cf. Ibis, 1869, p. 211.]

Ægiothus fuscens is figured. D. G. Elliot, B. N. Am. pt. xi.

Chrysomitris lawrencii is figured. D. G. Elliot, B. N. Am. pt. x.

Loxia bifasciata has occurred in the county Dublin. H. Blake-Knox, Zool. Sec. Ser. p. 1376.

EMBERIZIDÆ.

Emberiza ptyornis has occurred at Revel. Baron von Huene, J. f. O. 1868, p. 141.

"*Emberiza quinquelineata*, A. David," is described as a new species from Northern China. J. Verreaux, Ann. Sc. Nat. 5e sér. x. p. 67.

"*Emberiza himalayensis*" [cujus?] is said to be a common species between Simla and Mussoorie: R. C. Tytler, Ibis, 1868, p. 201. Referred to *E. ptyornis*, Pall.: E. Blyth, *tom. cit.* p. 355.

Plectrophanes nivalis is figured. J. Gould, B. Gr. Br. pt. xiii.

ALAUDIDÆ.

Melanocorypha rufescens, C. L. Brehm (Naumannia, 1856, p. 375) and Blasius (*tom. cit.* p. 469), is *M. alboterminata*, Cab. (Mus. Hein. i. p. 124). M. T. von Heuglin, J. f. O. 1868, pp. 221, 222.

Melanocorypha infusata (Zool. Rec. i. p. 85) is *Alauda erythropyga*, Strickl. (P. Z. S. 1850, p. 219, *Aves*, pl. xxi.). *Id. tom. cit.* pp. 222, 223.

Alauda præstigiatrix, Heugl. (Sitzungsb. k. Akad. Wissensch. Wien, 1856, p. 295), is *Mirafra cordofanica*, Strickl. (P. Z. S. 1850, p. 218, *Aves*, pl. xxiii.). *Id. tom. cit.* pp. 227, 228.

Geocoraphus [Cab. 1851 = *Mirafra*, Horsf. 1840] *elegantissimus* is described as a new species, but probably identical with *Megalophonus rufocinnamomeus* (Zool. Rec. iii. p. 100). *Id. tom. cit.* pp. 228, 229.

Megalophonus rufocinnamomeus (*ut supra cit.*), its description translated into German. E. von Martens, J. f. O. 1868, p. 68.

Pyrrhulauda modesta (Zool. Rec. ii. p. 120) seems to be the female of *P. nigriceps*, Gould (Zool. 'Beagle,' *Aves*, p. 87); and this last is distinct from "*P. frontalis*, Licht," Bp. (Consp. Av. i. p. 512), which appears to be identical with *P. crucigera*, Heugl. (Sitzungsb. k. Akad. Wissensch. Wien, 1856, p. 29), *nec* Temm., *nec* Rüpp. M. T. von Heuglin, J. f. O. 1868, pp. 218, 219; J. Cabanis, *tom. cit.* p. 219, note.

Coraphites melanauchen, Cab. (Mus. Hein. i. p. 124), is *Pyrrhulauda crucigera*, Rüpp. (Syst. Uebers. p. 79). M. T. von Heuglin, *tom. cit.* pp. 219, 220.

Certhilauda doriae is described as a new species, being the Asiatic form of *C. desertorum*, than which it is somewhat smaller, and has a wider dark band on the secondaries. T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 291, 292.

ICTERIDÆ.

Molothrus pecoris, the foster-parents chosen for its young. T. H. Jackson, Am. Nat. 1868, p. 490.

Agelaius phæniceus with a bright orange crescent-shaped mark on the breast. W. Brewster, Am. Nat. 1868, pp. 217, 218.

STURNIDÆ.

Sturnus purpurascens is described as a new species, from Erzeroum, larger than either *S. vulgaris* or *S. indicus*, the back glossed with purple, the wings with coppery-red, the chest bluish-green, and the breast coppery. J. Gould, P. Z. S. 1868, p. 219.

Sturnus vulgaris is figured. *Id.* B. Gr. Br. pt. xiv.

Acridotheres tristis, *Pastor roseus*, *Sturnus vulgaris*, and *S. unicolor*, their utility in destroying grasshoppers and locusts: A. Cretté de Palluel, Bull. Soc. Imp. d'Acclimat. 1866, pp. 259-262. The introduction of the first into Algeria: A. Grandidier, *tom. cit.* pp. 359, 360; J. Verreaux, *tom. cit.* p. 607.

Ampeliceps coronatus, Blyth (J. A. S. B. 1842, p. 195), originally described from Tenasserim, inhabits also the northern part of Cochin-China. Its habits resemble those of *Acridotheres*. J. Verreaux, P. Z. S. 1868, pp. 622, 623.

Lamprocolius defilippii (Zool. Rec. iii. p. 102), its description translated into German. E. von Martens, J. f. O. 1868, pp. 68, 69.

Elurædus smithi (Vig. & Horsf., Trans. Linn. Soc. 1827, xv. p. 264) should stand as *Æ. crassirostris* (Paykull, N. A. Soc. Sc. Upsal., 1815, vii. p. 282). P. L. Sclater, Ibis, 1868, p. 501.

Sericulus chrysocephalus [sc. *melinus*] in confinement. P. L. Sclater, P. Z. S. 1868, pp. 406, 622.

CORVIDÆ.

Corvus frugilegus, its insect-diet and consequent utility shown by examination of the contents of its stomach: — Millet *et al.* Bull. Soc. Imp. d'Acclimat. 1868, pp. 523, 524. The harm done by it: — Séséquier, *tom. cit.* pp. 761, 762.

Corvus coronoides is figured. S. Diggles, Orn. Austral. pt. xvi.

Lycus dauricus, in Dauria occur more or less black varieties, which are referred to *L. spermolegus**. B. Dybowski & A. Parrex, J. f. O. 1868, p. 332.

Cissa venatoria in confinement. P. L. Sclater, P. Z. S. 1868, p. 538.

Gelastes is proposed as a generic name in place of *Pica*, which the author considers to be too much like *Picus*, while *Cleptes*, Gambel, is preoccupied in entomology. F. W. Mäklin, Vetensk. Grund. für Bestämm. af Fogelart. Ordningf. pp. 106, 107, notes. [*Gelastes* has been long since used by Bonaparte for a genus of *Laridæ*.]

Garrulus melanocephalus and *G. cervicalis* are confounded (*cf.* Zool. Rec. iii. p. 102). M. T. von Heuglin, J. f. O. 1868, p. 308.

Fregilus himalayanus, Gould, is identical with *F. graculus* (L.). A. von Pelzeln, J. f. O. 1868, pp. 83, 84; Ibis, 1868, p. 317.

Nucifraga caryocatactes, its breeding in Switzerland. G. Vogel, J. f. O. 1868, p. 329.

Cracticus nigrogularis and *C. destructor* are figured. S. Diggles, Orn. Austral. pt. xix.

COLUMBÆ.

COLUMBIDÆ.

Columba livia, the various domestic breeds which have sprung from it. C. Darwin, Anim. and Pl. under Domestic. i. pp. 131-224.

Mr. Darwin was led to study domestic Pigeons with particular care, first, because the evidence that all the domestic races have descended from one known source was far clearer than with any other anciently-domesticated animal; secondly, because many treatises in various languages, some of them old, have been written on these birds, so that we are able to trace the history of the several breeds; and thirdly, because the amount of variation, arising from causes we can partially understand, has been extraordinarily great. Above 150 kinds exist, which "breed true" and have been separately named; and there can be no doubt, says the author (and most justly as it appears to us), that if well-characterized forms of the several races had been found wild, all of them would have been ranked as distinct species, and several would have been placed in different genera. These various breeds are classified by Mr. Darwin in four groups, as follows:—

Group I. is composed of a single Race, that of the "Pouters," having the cesophagus of great size, barely separated from the crop, often inflated. Body and legs elongated. Bill moderate. The most strongly-marked subrace,

* We imagine the *Corvus spermolegus* of Vieillot (*Monedula nigra*, Brehm) to be only the young of *C. monedula*; and even if *C. dauricus* be a good species, it may well be that its young resembles that of the common European form (*cf.* Ibis, 1868, p. 447, note).

the "Improved English Pouter" (of which a figure is given, p. 187), is perhaps the most distinct of all domesticated Pigeons.

Group II. includes *three* Races: (1) "Carriers," (2) "Runts," and (3) "Barbs." The First have the bill long, narrow, and pointed, the eyes surrounded by much naked and generally carunculated skin, the neck and body much elongated. (The "English Carrier," one of the four subraces into which it is divided, is figured, p. 140.) The Second have the bill long and massive, and the body of great size. (Five subraces are described.) The Third Race of this group have the bill short, broad, and deep, the bare skin round the eyes broad and carunculated, the skin over the nostrils slightly swollen. (The "English Barb," the only subrace mentioned, is figured, p. 145.)

Group III. is artificial, and to it are assigned a heterogeneous collection of *five* Races: (1) "Fantails," (2) "Turbits" and "Owls," (3) "Tumblers," (4) "Indian Frill-backs," and (5) "Jacobins." The First are remarkable for the wonderful development of tail, consisting of many rectrices—according to one authority, of 42! In one subrace, the "English Fan-tail," which is figured (p. 147), the oil-gland is aborted; in the other, the "Java Fan-tail," it is well developed. The Second have the feathers divergent along the front of the neck and breast, the bill short and rather thick, and the cesophagus somewhat enlarged. The subraces (if any) are not enumerated, but the "African Owl" is figured (p. 149). The Third Race take their name from the habit of tumbling backwards during flight; the body is generally small, the bill usually short, sometimes excessively so, and conical. Four subraces are described, one of them, the "Lotan" or "Indian Ground-Tumbler," being very remarkable; another, the "Short-faced Tumbler," is figured (p. 152). The Fourth Race have the bill very short, and the feathers reversed. The Fifth have the feathers of the neck forming a hood, the wings and tail long, the bill moderately short. Of neither of these latter are any subraces mentioned.

Group IV. greatly resembles *Columba livia*. It comprises *two* Races: (1) "Trumpeters," and (2) Pigeons scarcely differing in structure from the wild stock. The First have a tuft of feathers at the base of the neck curling forward, the feet much feathered, and a very peculiar voice. They are larger than the wild *C. livia*. The Second are divided into five subraces. Besides these, some three or four other little-known breeds are mentioned.

Passing over a section devoted to remarkable "Individual Variations" (pp. 158-162), we come to one wherein Mr. Darwin describes at some length the "Osteological Characters" (pp. 162-171) of the different Races. These are exceedingly important, and prove that scarcely any part of the skeleton is constant, while the illustrations show, better even than the full-length figures of the birds, the remarkable nature of the modifications which have taken place in the head and parts of the sternal apparatus. Then follows a section on the "Effects of Disuse" (pp. 171-177), and the chapter closes with a "Summary of the Points of Difference between the several Domestic Races, and between the Individual Birds" (pp. 177-179).

The remainder of Mr. Darwin's account of these birds we must pass over more briefly. It treats of their "Aboriginal parent-stock," the "Wild Races of *Columba livia*" (*C. affinis*, *C. intermedia*, *C. leuconota*, *C. schimperi*, and so forth, which are commonly accounted good species, but differ much less than do nearly all the domestic forms already described), "Proofs of the

descent of the several Races" from that species, "Fertility of the Races when crossed," "Reversion to the plumage" of the wild form, "Circumstances favourable to the Formation of Races," their "Antiquity and History," "Artificial Selection," "Extinction of Intermediate Forms," "Permanence and Mutability of Certain Breeds," and, finally, a "Summary," of which we may give the following abstract:—It may be confidently concluded that all the domestic Races are descended from *C. livia*, including under that name certain wild Races, though the differences between these latter throw no light on the distinctive characters of the domestic Races. In each breed or subbreed the individuals are more variable than birds in a state of nature, and occasionally they vary in a sudden and strongly-marked manner. This plasticity apparently results from changed conditions of life. Disuse reduces certain parts of the body. Correlation of growth so ties together the organization, that when one part varies, other parts vary simultaneously. When several breeds have been formed, their intercrossing aids the progress of modification, and has even produced new subbreeds; but herein "Selection" has been the presiding power, whether followed methodically or unconsciously; and this almost inevitably leads to the extinction of the earlier and less improved forms, as well as of many intermediate links in each line of descent.

Such, then, is a very brief account of what we must regard as two of the most remarkable chapters ever written on any zoological subject; and in thus looking upon them, we entirely set aside every consideration as to the probability of the author's theory being true or false. Few reflective men will deny the utility of such an accumulation of facts relating to one species; and none will presume to question the ability with which they are presented to the reader, forming a monograph of a kind never attempted before. It would be beyond our province to express any further opinion.

Columba meyeri is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 36.

Pakumbus torquatus is figured. J. Gould, B. Gr. Br. pt. xiv.

Turtur auritus, *T. senegalensis*, and *T. risorius*, their different habits in Palestine. H. B. Tristram, Ibis, 1868, pp. 210, 211.

Ptilinopus pelewensis is a new species from the Pelew Islands, nearly allied to *P. roseicapillus*, Less., from the Marianne Islands, which differs in having a distinct rose-red spot at the rictus, a white throat, a greyish-green head and neck, and other points. It is also allied to *P. fasciatus*, but that has the belly and rump dark yellow and other distinguishing characters. G. Hartlaub & O. Finsch, P. Z. S. 1868, p. 7.

Macropygia phasianella and *Chalcophaps chrysochlora* are figured. S. Diggle, Orn. Austral. pts. xviii., xx.

Megaloprepia assimilis (Gould, P. Z. S. 1850, p. 201) is regarded as a variety only of *M. magnifica*. E. P. Ramsay, P. Z. S. 1868, p. 387.

Chloranas subvinacea is described as a new species, from Costa Rica, lighter in colour than *C. vinacea*, the back and rump being of a cinnamon-brown, and the inner webs of the quills cinnamon-colour. It also differs from *C. nigrirostris* in being larger. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, p. 135.

Leptoptila plumbeiceps and *L. cerviniventris* are two new species from Vera Paz, Guatemala. The first also occurs in Mexico, and is allied to the South-

American *L. rufaxilla* (Rich. & Bern.), but with the top of the head of a deep lead-colour. The second resembles *L. cassini* (Zool. Rec. iv. p. 113) from Panama, but has the breast paler, with a vinous-coloured tinge, and the upper part of the belly of a deep buff. A list of eight species of the genus known to the authors is added. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 59, 60.

Leptoptila riottii is described as a new species from Costa Rica, coming nearest to *L. brachyptera*; but that has the forehead greyer and the cheeks without any vinaceous tinge; the new species is a little darker on the breast and sides, the under wing-coverts are brighter, and the inner webs of the quills cinnamon-colour. The differences between this and *L. albifrons*, *L. verreauxi*, and *L. rufaxilla* are also pointed out. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 137, 138.

Geotrygon chiriquensis [sc. *albifacies*], *G. bourcierii*, and *G. chiriquensis* [vera]. P. L. Sclater & O. Salvin, Ex. Orn. pls. xxxix., xl., and xlii.

Geotrygon costaricensis and *G. cæruleiceps* are described as two new species from Costa Rica. The first is allied to the group represented by the Cuban *G. caniceps*, and the colour of the breast is nearly the same in each, but the new bird has longer and stouter feet. The second is said not to require comparison with any other species; its most distinguishing feature is the extent of blue on the head. [Referred to *G. chiriquensis*, Scl. vera (vide supra). O. Salvin, Ibis, 1869, p. 317.] G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 136, 137.

DIDIDÆ.

BEHN, —. Ueber die untergegangenen Vögel, zumal die Dronte. Allgem. deutsche naturhist. Zeitung, 1867, pp. 164, 169.*

An abstract of Prof. Owen's paper on the Osteology of *Didus ineptus* (Zool. Rec. iii. pp. 104, 105), to which are prefixed a few remarks on its history and other particulars (some of no small interest) which have escaped the notice of former investigators. [Cf. Ibis, 1868, pp. 479, 480.]

BRANDT, J. F. Neue Untersuchungen über die systematische Stellung und die Verwandtschaften des Dodo (*Didus ineptus*). Mélang. Biolog. Bull. Ac. Imp. Sc. St. Pétersb. vi. pp. 233-253.

These researches are based chiefly on the labours of Messrs. Clark, Coquerel, Gervais, and A. Milne-Edwards (Zool. Rec. iii. pp. 104-106); and the author, who had not seen Prof. Owen's paper on the Osteology of *Didus* (loc. cit.), argues in favour of its having been a Grallatorial bird, and proposes to divide that Order into six families:—(1) *Alectoridæ*, including *Palamedea*, *Psophia*, *Dicholophus*, and *Otis*; (2) *Dididæ*; (3) *Charadriidæ*; (4) *Scolopacidæ*; (5) *Herodii*, comprising *Ibis*, *Platalea*, *Tantalus*, *Ciconia*, *Anastomus*, *Dromas*, *Scopus*, *Baleniceps*, *Ardea*, and *Grus*; and lastly (6) *Rallidæ*, with *Rallus*, *Gallinula*, *Porphyrio*, *Parra*, *Fulica*, and *Podoc. [Cf. Ibis, 1869, pp. 227, 228.]*

FRAUENFELD, GEORG VON. Neue aufgefundenene Abbildung des Dronte u. s. w. Wien: 1868. Imp. fol. pp. 17, pls. 4.

This work contains an account of an old picture of *Didus ineptus* lately found in the private library of the Emperor of Austria, as well as one of another bird [see "*Rallidæ*"]. These are shown, with great probability, to have been painted by Hoefnagel, a Dutch artist, who flourished towards the

end of the sixteenth century; and the subjects of them were, with equal probability, living in the *vivarium* of the then Emperor Rudolf II. The picture of *Didus*, admirably reproduced in colours, differs in many respects from those hitherto known, the bird being represented of a sooty-brown colour nearly all over, with comparatively long remiges. [Cf. Ibis, 1868, pp. 480, 481.]

JÄCKEL, A. J. Eine alte Abbildung des Dronte. Zoolog. Garten, 1868, pp. 35-37.

The picture, of which a woodcut is given, is by Roelandt Savery, and is now at Pommersfelden, near Bamberg. [Cf. Ibis, 1868, pp. 478, 479.]

MILLIES, H. C. Over eene nieuw ontdekte Afbeelding van den Dodo (*Didus ineptus*, L.). Amsterdam: 1868. 4to, pp. 20. Reprinted from Verh. k. Akad. Wetensch. Amsterdam, xi.

The figure, of which a facsimile is given, was found in a copy of Clusius's 'Exot. Libr. X.' in the High School of Utrecht, and is by Adriaan van de Venne, who died in 1665. Above it is a statement of its having been drawn at Amsterdam from the life in 1626. The author gives an abstract of the history of the bird, and treats of the derivation of its various names, besides furnishing some other interesting information. In 1647 a live Dodo was sent to Japan by the Governor of Batavia. Dr. Willigen, of Haarlem, possesses a coloured representation of the species, ascribed to Pieter Holsteijn, but would not allow it to be copied. Another figure, "in a bird-book," by the same artist, also exists in Holland, but the author has not seen it. [Cf. Ibis, 1868, p. 477, 478.]

NEWTON, ALFRED. On a Picture supposed to represent the Didine Bird of the Island of Bourbon (Réunion). Trans. Zool. Soc. vi. pp. 373-376, pl. 62.

The picture the subject of this paper has been twice before mentioned in this annual (Zool. Rec. iii. pp. 106, 107, iv. p. 114). It is in water-colours, and bears the monogram of Pierre Witthoos, who died in 1693. It appears to have been drawn from life, and represents a bird in general shape not unlike the true *Didus ineptus*, but white, with some admixture of yellow, and having the four first remiges directed downwards and forwards. These characters are shown to agree with those of the Bourbon bird, as described and figured by old voyagers; and the author hence infers that this picture represents that species rather than the Mauritian one. There is a difficulty, however, which must not be neglected, in the way of this view; one of the eye-witnesses (Du Bois) says that the "Solitaire" of Bourbon had a "becq fait comme celuy des Bécasses," which is very unlike that represented here. A coloured copy of the picture is given.

NEWTON, ALFRED and EDWARD. On the Osteology of the Solitaire or Didine Bird of the Island of Rodriguez, *Pezophaps solitaria* (Gmel.). (Abstract) Proc. Roy. Soc. 11 June, 1868, vol. xvi. pp. 428-433. Reprinted Ann. & Mag. N. H. 4th ser. ii. pp. 159-165.

This paper, intended to appear at full length in the 'Philosophical Transactions,' is founded on the remains before mentioned (Zool. Rec. ii. p. 124, iv. p. 114). They were discovered in caves at Rodriguez in 1806, and are about 2000 in number, including almost all the most important parts of the skeleton. This vast series shows that there was a very great amount of indi-

vidual variability in the species, which renders the task of describing them difficult; but from this wealth of material the authors have greater confidence in the opinions they declare. Two almost entire skeletons (supposed to be male and female) have been mounted; and these are described in much detail, Prof. Owen's paper on *Didus* (Zool. Rec. iii. pp. 104, 105) being followed as a pattern, and the whole compared bone by bone with that bird and also with *Didunculus*. From the latter *Pezophaps* differs quite as much as does *Didus*, to which it is nearly allied. The most remarkable feature is the presence of a bony knob on the radial side of the metacarpal bone, which is very largely developed in the supposed males, and only slightly in the supposed females. This most singular and unexpected discovery corroborates the veracity of Leguat, who described the males as having a little round mass like a musket-ball under the wing. A microscopic description of its structure, by Mr. J. Gedge, is added. The differences between *Didus* and *Pezophaps* are then pointed out, and more detailed generic characters assigned to each. After reference to the narratives of the old voyagers, it is suggested that both birds were most likely exterminated by feral swine. The extraordinary fidelity of Leguat's account is next considered. It is certainly borne out by the facts in every case, save perhaps one, the inference that the bird was monogamous, reasons being given for doubting this particular. After this the authors indulge in some speculations as to the origin of species and the process of Natural Selection, with remarks on the orniths of the Mascarene Islands. Whether this has resulted from that process must remain an open question; but they conclude by declaring their belief that *Pezophaps* and *Didus* must have sprung from the same parent stock. [Cf. Ibis, 1868, p. 362.]

GALLINÆ.

HUXLEY, T. H. On the Classification and Distribution of the *Alectoromorphæ* and *Heteromorphæ*. Proc. Zool. Soc. 1868, pp. 294-319, with Map.

The generalizations to which this paper leads have been already recounted [see "GENERAL SUBJECT"]. Its first section is a consideration of the proper limits of the *Alectoromorphæ* and of its subdivisions. The name is now restricted to the *Phasianidæ* [including the *Tetraonidæ*], *Megapodiidæ*, and *Cracidæ*, leaving out the *Turnicidæ* and *Pteroclidæ* [of which more presently]. The osteological character of these three groups is given; and it is then shown that they are divisible into two sections, which the author terms:—*Peristeropodes*, composed of the *Megapodiidæ* and *Cracidæ*; and the *Alectoropodes*, formed by the Galline, Pavonine, Phasianine, and Tetraonine birds—in other words, the *Phasianidæ* and *Tetraonidæ* of most authors, which present "two types of structure," one of which may be termed Galline and the other Tetraonine. These two series of forms meet among the Partridges and Quails—*Perdix* lying on the latter and *Caccabis*, *Rollulus*, *Francolinus*, and *Coturnix* on the former side of the boundary. *Odontophorus* probably goes with *Perdix*. The different facts on which this opinion is founded are adduced in considerable detail. Then comes a section on the relations of the *Pteroclidæ* and *Hemipodiidæ* [*Turnicidæ*] to the true *Alectoromorphæ*, and the first are shown to be completely intermediate between the last and the *Peristeromorphæ*. As they cannot be included in either group without destroying

PHASIANIDÆ.

Gallus bankiva, the various domestic breeds which have sprung from it. C. Darwin, Anim. and Pl. under Domestic. i. pp. 225-275.

Thirteen breeds are described:—(1) "Game," (2) "Malay," (3) "Cochin" or "Shangai," (4) "Dorking," (5) "Spanish" (with fig. p. 226), (6) "Hamburg" (with fig. p. 228), (7) "Crested" or "Polish" (with fig. p. 229), including seven subbreeds, (8) "Bantam," (9) "Rumpless," (10) "Creepers" or "Jumpers," (11) "Frizzled" or "Caffre," (12) "Silk," and (13) "Sooty." It is argued that all have descended from one stock, and that stock is *G. bankiva*. The ancient history of the Domestic Fowl is then given, and an account first of the external and then of the osteological differences between the several breeds, the latter differences being strikingly illustrated by figures. To this follow remarks on the effects of use and disuse on certain parts of the structure, and on correlation of growth, the whole forming an epitome only inferior to the author's treatise on *Columba livia* (*suprà*, pp. 94-96).

Gallus domesticus, a hen in cock's plumage and yet fertile. A. von Ho-meyer, Zool. Garten, 1868, pp. 94-97.

Gallus ferrugineus and *G. sonnerati*, their geographical distribution. W. T. Blanford, J. A. S. B. xxxvi. (1867), pp. 199, 200.

BLYTH, E. Diverses espèces de Faisans pouvant être acclimatées en Angleterre. Bull. Soc. Imp. d'Acclimat. 1868, pp. 704-737.

A translation of a series of articles which appeared in 'Land and Water' in December 1866 and January 1867.

Lophophorus lhuysii (Zool. Rec. iii. p. 107) is figured and diagnosed from *L. refulgens*. P. L. Sclater, P. Z. S. 1868, p. 1, pl. i.

Lophophorus impeyanus, its breeding in England. E. Blyth, Bull. Soc. Imp. d'Acclimat. 1868, pp. 677, 678 [translated from 'Land and Water,' Nov. 9, 1867].

Phasianus reevesi and *Crossoptilum auritum* bred in the Zoological Gardens in 1867, and several young of each were reared: A. D. Bartlett, P. Z. S. 1868, pp. 114, 115; Bull. Soc. Imp. d'Acclimat. 1868, pp. 679, 680. Their geographical range, as well as that of *P. torquatus* and *Thaumatococcus picta*: A. David, P. Z. S. 1868, p. 210.

Phasianus versicolor, *Catreus wallichi*, *Euplocamus melanotus*, *E. albocristatus* and *E. horsfieldi*, on the rearing of them. L. de Beaufort, Bull. Soc. Imp. d'Acclimat. 1868, pp. 268-274.

Euplocamus nobilis, Sclat. (P. Z. S. 1863, p. 119, pl. xix.), in confinement, P. L. Sclater, P. Z. S. 1868, p. 261.

Euplocamus cuvieri (Temm. Pl. Col. 1) is from Arracan, and is intermediate between *E. lineatus* and *E. horsfieldi*. *Id. tom. cit.* p. 623.

Cerionis satyra is figured. J. Gould, B. As. pt. xx.

Crossoptilum drouyni is described as a new species from the interior of China, differing in several respects from *C. tibetanum* and *C. auritum*, and especially by the uniform white of the whole body and wings. H. Milne-Edwards, Comptes Rendus, 20 Apr. 1868, lvi. pp. 787, 788; R. Z. 1868, pp. 263, 264.

[Qu. *C. mantchuricum* (Zool. Rec. i. p. 88, iv. p. 115)?].

Pavo nigripennis is supposed to be a native of Annam: R. Swinhoe, Ibis,

1868, pp. 353, 354; P. Z. S. 1868, pp. 530, 531. Particulars of its origin: C. Darwin, Anim. and Pl. under Domestic. i. pp. 290-292.

Pavo cristatus, its variability under domestication. *Id. loc. cit.*

Meleagris mexicana [sc. *gallopavo**], its variability under domestication. C. Darwin, Anim. and Pl. under Domestic. i. pp. 292-294. Figured, D. G. Elliot, B. N. Am. pt. x.

Numida meleagris, Linn., its probable descent from *N. pitlorhynchus*, Licht., and variation under domestication. C. Darwin, Anim. and Pl. under Domestic. i. p. 294.

Numida —, a second species (besides *N. tiarata*), is found in Madagascar, which, according to Capt. W. F. W. Owen (Narrat. Voy. Afr. Arab. & Madag. 1833, ii. p. 36), has a long tail. P. L. Sclater, Ibis, 1868, pp. 501, 502.

TETRAONIDÆ.

Pternistes sclateri (Zool. Rec. iv. p. 115) occurs at Huilla, West Africa. J. V. Barboza du Bocage. Jorn. Sc. Lisboa, 1868, p. 49.

Caccabis græca, *C. saxatilis*, and *C. chukar*: the second, from Palestine, probably not specifically identical with the others. H. B. Tristram, Ibis, 1868, pp. 213, 214.

Caccabis rubra is figured. J. Gould, B. Gr. Br. pt. xiii.

Francolinus vulgaris and *F. pictus*, their geographical distribution in India. W. T. Blanford, J. A. S. B. xxxvi. (1867) p. 200.

Malacoturnix superciliosus (Zool. Rec. iv. p. 116) is figured. J. Gould, B. As. pt. xx.

Synæcus australis and *S. chinensis* are figured. S. Diggles, Orn. Austral. pt. xx.

Ortyx virginianus has occurred in Kent. J. W. Stephenson, Zool. S. S. p. 1059. [Qu. imported?]

Tetrao urogallus, female in male plumage, and hybrid between the male of that species and the female of *T. tetrix*, described. V. Fatio, Bull. Soc. Vaudoise Sc. Nat. (1868) ix. pp. 590-598.

Bonasia umbellus, its habits. A. Fowler, Am. Nat. 1868, pp. 365-367.

PTEROCLIDÆ.

The birds forming this family are erected into a group under the name of *Pterocloromorphæ*, coordinate with the *Alectoromorphæ*. T. H. Huxley, P. Z. S. 1868, pp. 302, 303.

Syrhaptes paradoxus, its occurrence in Venetia in 1863-4: E. de Betta, Atti dell' Istituto Venet. tom. x. (23 March and 24 April 1865). In Italy: T. Salvadori, Atti Accad. Sc. Torino, 1868, pp. 293, 294. In Livonia: A. v. Middendorff, Sib. Reise, Bd. iv. Th. 2. Lief. 1, p. 1026, note.

TURNICIDÆ.

The birds forming this family are erected into a group under the name of *Turnicimorphæ*, coordinate with the *Alectoromorphæ* and *Pterocloromorphæ*. T. H. Huxley, P. Z. S. 1868, pp. 303, 304.

* It seems to us that the name *gallopavo* must be retained for the tame race, and consequently for the species whence it has sprung, having been applied by Linnæus (S. N. 12th ed. i. p. 268) to the form domesticated in Sweden (Faun. Suec. no. 198).

TINAMIDÆ.

Rhynchotis rufescens bred in 1867 in the Zoological Gardens. Sixteen or more young birds were hatched, and reared. Incubation was performed exclusively by the male [a *Struthious*-like character, confirming the views of Mr. Parker and Prof. Huxley (Zool. Rec. iii. p. 108, iv. p. 47) as to the affinity of the *Tinamidæ* (*Dromæognathæ*) with the *Struthiones* (*Ratitæ*)]. The eggs and young are described and (the former badly) figured. A. D. Bartlett, P. Z. S. 1868, pp. 114, 115, pl. xii.

Tinamus frantzii is a new species from Costa Rica, about the size of *T. robustus*, but darker and different in colouring, having a rufous throat, mottled primaries, and strikingly longer toes. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868, pp. 140, 141.

Tinamus robustus, *Crypturus sallæi*, *C. boucardi*, and *C. meserythrus* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pls. xlv.-xlvii.

OPISTHOCOMIDÆ.

Opisthocomus cristatus, its osteology most carefully described, with illustrative woodcuts, and its affinities considered. It is regarded as the type and sole member of a group called *Heteromorphæ*, coordinate with the *Alectoromorphæ*, *Pterocloromorphæ*, and *Turnicimorphæ*. T. H. Huxley, P. Z. S. 1868, pp. 304-311, figures.

GRALLÆ.

RALLIDÆ.

FRAUENFELD, GEORG VON. Neue aufgefundenen Abbildung des Dronte und eines zweiten kurzflügeligen Vogels, wahrscheinlich des *Poule rouge au bec de Bécasse* der Maskarenen, u. a. w. Wien: 1868. Imp. fol. pp. 17, pls. 4.

The first of the pictures described we have already mentioned (*suprà*, pp. 97, 98). The second is far more valuable, as it probably represents a form entirely extinct and only very imperfectly known through the rude figures and slight notices given by old voyagers. This species the author calls *Aphanapteryx imperialis*; and an excellent copy of the picture is given. It was of a dusky rust-colour, with a somewhat long, curved and trenchant bill, stout legs, wings (if any) quite useless for flight, and no tail.

This discovery is a most interesting one, particularly when it is taken in connexion with the fact that among the bones found in the Mars aux Songes in Mauritius (Zool. Rec. ii. p. 124, iii. p. 104) are some, collected by Mr. Edward Newton, which have been identified as those of this bird (*Ibis*, 1868, pp. 481, 482) by M. Alphonse Milne-Edwards, who, however, considers the species to have been already named by Prof. Schlegel (Versl. en Meded. K. Akad. Amsterd. ii. p. 356) *Didus broeckii*, but M. Milne-Edwards agrees with Herr von Frauenfeld in referring it to the family *Rallidæ*. [Cf. F. C. Noll, Zool. Garten, 1868, p. 282: A. Milne-Edwards, Ann. Sc. Nat. Zool. 5e sér. x. pp. 325-346; *Ibis*, 1869, pp. 256-275.]

SCLATER, P. L., & SALVIN, O. Synopsis of the American *Rallidæ*. Proc. Zool. Soc. 1868, pp. 442-470, pl. xxxv.

One of the best monographs known to us, surpassing (and this is saying

much) anything that the authors, either jointly or severally, have attempted. The American members of the family, so far as the authors are acquainted with them, consist of forty-eight species, belonging to ten genera, disposed in three subfamilies, *Rallina*, *Fulicina*, and *Heliornithina*. The list of species is synonymatic, descriptive, and geographical, while to nearly each genus, or section of a genus, is prefixed a "*clavis specierum*," showing concisely the diagnostic characters of each species. The subfamily *Rallina* is made to contain five genera, viz.:—*Rallus* with eight species; *Aramides* with seven; *Porzana* with eighteen (of which two are new, and one receives a new name), arranged under seven sections—*Porzana*, *Rufirallus*, *Laterirallus*, *Crybastes*, *Creciscus*, *Cotarnicops*, and (sect. nov.) *Neccrex*; *Crex* and *Thyro-rhina* (gen. nov.) each with one. The *Fulicina* include four genera, *Porphyrio* and *Porphyriops* with two species each, *Gallinula* with one, and *Fulica* with seven. The *Heliornithina* are represented only by the species *Heliornis fulica* (Bodd.).

"*Rallus aquaticus*" from Damaraland (Ibis, 1868, p. 261) should be *R. caeruleus*, as also probably the specimen from Natal (*op. cit.* 1859, p. 249). J. H. Gurney, Ibis, 1868, p. 471.

Rallina kioloides is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 39.

Fulica chilensis, its head figured, very different from *F. stricklandi*. P. L. Sclater & O. Salvin, P. Z. S. 1868, pp. 176, 177.

Fulica cornuta, *F. gigantea*, *F. ardesiaca*, *F. armillata*, *F. frontata*, *F. leucopyga*, *F. americana*, and *F. leucoptera*, woodcuts of their heads (the first from the type specimen): *Ibid.* tom. cit. pp. 463–468. The third, fourth, sixth, and last figured: *Ibid.* Ex. Orn. pls. lvii.–lx.

MILNE-EDWARDS, A. Mémoire sur une espèce éteinte du genre *Fulica* qui habitait autrefois l'île Maurice. Comptes Rendus, 30 March, 1868, lxvi. pp. 646–650. Reprint of the paper noticed last year (Zool. Rec. iv. pp. 117–118). Abstract, Rev. Zool. 1868, pp. 147–152; F. C. Noll, Zool. Garten, 1868, pp. 280–282. [Cf. Ibis, 1868, p. 482, note.]

Fulica newtoni [ut suprâ], its remains and a restoration of it is figured, with *R. cristata* and *F. atra*. A. Milne-Edwards, Ois. Foss. Fr. pls. cvii., cviii.

Gypsornis cuvieri, *Rallus eximius*, *R. major*, *R. intermedius*, *R. christii*, *R. beaumonti*, *R. porzanoides*, *R. dispar*, and *R. crex*, their remains figured. *Ibid.* op. cit. pls. ciii.–cv.

Leguatia (*Gallinula*) *gigantea* (Zool. Rec. iii. p. 109), Prof. Schlegel's restoration of it copied. Am. Nat. 1868, p. 615.

Porphyrio smaragdinus, Temm., from Natal, is shown to be different from *P. madagascariensis* (Lath.). J. H. Gurney, Ibis, 1868, pp. 469, 470.

Porphyrio caelestis is described as a new species from China, differing from *P. smaragdinus*, Temm. (qu. *P. indicus*, Horsf. ?), in having a purple instead of a grey belly, and a black abdomen. R. Swinhoe, tom. cit. pp. 59, 60.

Porphyrio melanotus (lege *melanonotus*), a small local variety occurs in the Pelew Islands. G. Hartlaub & O. Finsch, P. Z. S. 1868, pp. 8, 117.

Porphyrio martinus and *P. parvus*, their heads figured. P. L. Sclater & O. Salvin, tom. cit. pp. 459, 460.

Porphyriops leucopterus (Zool. Rec. iii. p. 109), its description translated into German: E. von Martens, 1868, pp. 69, 70. Said to be distinct from *P. melanops*: P. L. Sclater & O. Salvin, P. Z. S. 1868, p. 175, note. Subse-

quently referred to that species, though apparently with doubt: *Iid. tom. cit.* p. 461.

Neocrex is apparently the name of a new section of *Porzana*, established for the reception of *P. erythrops*, Sclater (Zool. Rec. iv. p. 117), being of larger size, and having the tarsus and toes short. *Iid. tom. cit.* pp. 450, 457.

Thyrorhina is a new genus, of which *Crex schomburgki*, Cab., is the type. It has the nostrils partly covered in front by a horny membrane, and completely divided from each other by a median septum. Two figures of the head of *T. schomburgki* are given. *Iid. tom. cit.* pp. 443, 458.

Porzana (Rufirallus) leuraudi and *P. (R.) castaneiceps* are new species: the former, which is figured, is from Venezuela, and of about the size and shape of *P. cayennensis*, but whole coloured above, and white along the middle beneath; the latter is from the Rio Napo, and nearly allied to *P. concolor*, but the chestnut-colour extends only over the head and front of the body below. *Iid. tom. cit.* pp. 451-453, pl. xxxv. [*Fig. mirabilis!*]

Porzana (Laterirallus) huxwelli is described a new species, but is *P. fasciata* (Zool. Rec. iv. p. 117). The reason for changing the name is not given: *Iid. tom. cit.* p. 453. Figured, as also *P. melanophæa*, *P. albigularis*, and *P. leucopyrrha*, and a complete list of the American species of the section given: *Iid. Ex. Orn. pls.* liii.-lvi.

SCOLOPACIDÆ.

Totanus ochropus supposed to have bred in Lincolnshire. J. Cordeaux, Zool. S. S. pp. 1412, 1459.

Totanus glareola is figured. J. Gould, B. Gr. Br. pt. xiv.

Scolopax gallinula moults in spring. E. H. Rodd, Zool. S. S. p. 1220.

Scolopax sabinii, its occurrence in Dorsetshire. J. H. Gurney, jun., Zool. S. S. p. 1293.

Scolopax wilsoni perching on trees. W. A. Pope, Am. Nat. 1868, p. 329.

Scolopax major unusually abundant in England in 1868. J. H. Gurney, jun., Zool. S. S. p. 1422; G. F. and M. A. Mathew, *tom. cit.* pp. 1460, 1461; A. P. E. Powell and C. M. Adamson, *tom. cit.* 1461; J. W. Stephenson and E. H. Rodd, *tom. cit.* p. 1482. The specimen mentioned by the last had eighteen rectrices.

Gallinago angolensis is described as a new species from Huilla, resembling *G. equatoriahs*, Rüpp., but larger, and with a much longer bill. J. V. Barboza du Bocage, Jorn. Sc. Lisboa, 1868, pp. 49, 50.

Limosa rufa and *L. melanura* are figured. J. Gould, B. Gr. Br. pt. xiv.

Limosa europæialis, head figured. S. Diggles, Orn. Austral. pt. xvi.

*Ibid. rhynchus struthersi** may possibly be a bird, with red bill and legs, seen on the banks of the Oural. J. H. Gurney, Ibis, 1868, p. 394, note.

Tringa maculata breeding in Pennsylvania. W. J. Hoffmann, Am. Nat. 1868, p. 216, 217.

CHARADRIIDÆ.

VAN DER HORVEN, J. *Atinotaciones de Dromade ardeola* Payk. Dresdæ :

* It seems at present uncertain what may be the real place of this form. We here follow the assignment of Dr. Jerdon (B. Ind. iii. p. 685).

1867, 4to, pp. 16, pl. Separately printed from Nov. Act. Ac. L.-C. Nat. Cur. xxxiii. French translation, Arch. Néerland. 1868, pp. 281-295.

A very excellent treatise on this form (the position of which has long been in doubt), including a somewhat minute description and a figure of its skeleton. It is shown to stand next to *Hæmatopus* (cf. Ibis, 1867, p. 351).

Edicnemus indicus and *Æ. inornatus* (Zool. Rec. iii. p. 110), their descriptions translated into German. E. von Martens, J. f. O. 1868, p. 60.

Defilippia (Zool. Rec. iii. p. 110), the characters of the genus translated into German. *Id. tom. cit.* p. 67.

Charadrius leschenaulti and *C. asiaticus*, Pall., both occur in Palestine. H. B. Tristram, Ibis, 1868, pp. 323, 332.

Glareola nordmanni, Fischer, is beautifully figured from a Natal specimen. J. H. Gurney, *tom. cit.* pp. 254, 255, pl. viii.

Glareola pratincola, the chick figured. Alb. Marchand, R. Z. 1868, pl. 5.

Glareola ocularis is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 38.

Cursorius gallicus, its occurrence for the first time in Scotland (7 Oct. 1868): F. Walker, Zool. S. S. p. 1459; J. A. H. Brown, *tom. cit.* p. 1482. At Lemgo, not far from Detmold, in Germany (18 Sept. 1868): R. Meyer, Zool. Garten, 1868, pp. 382, 383.

OTIDIDÆ.

Otis macqueeni, the female possesses the ruff as well as the male. A. Hume, Ibis, 1868, p. 241.

Otis kori and *O. australis*, the gular pouch of the former described and figured, and the latter represented in one of its paroxysms, with the pouch enormously distended (cf. Zool. Rec. iv. p. 120). J. Murie, P. Z. S. 1868, pp. 471-477, pl. xxxvi. [See "ANATOMY."]

GRUIDÆ.

Grus leucogeranus, a very full account of its habits, as observed in India, with a detailed description of its changes of plumage, and a table of dimensions: A. Hume, Ibis, 1868, pp. 28-40. In confinement: P. L. Sclater, P. Z. S. 1868, p. 526.

Grus americana in confinement, together with eleven other species of the family. *G. fraterculus* was probably established only on a small specimen of *G. canadensis*. *Id. tom. cit.* p. 567.

Grus cinerea, its migration in Neu-Vorpommernem. — Quistorp, J. f. O. 1868, pp. 259-261.

RHINOCETIDÆ.

Rhinocetus jubatus, from a consideration of its osteology, forms the type of a distinct family, belonging to Professor Huxley's *Geranomorphæ*, and is most nearly allied to *Psophia* and *Eurypyga*: W. K. Parker, P. Z. S. 1868, p. 2. [The foregoing is only announced as the result of a paper which will appear in the 'Transactions of the Zoological Society.'] Its egg (laid in the Zoological Gardens) figured and described; it very closely resembles that of *Eurypyga helias* (Zool. Rec. iii. p. 111), which is also figured; but the plate

does not give an adequate representation of either. The author's views as to the affinity of these two forms (*ut supra coll.*) is thereby confirmed. A. D. Barlett, *tom. cit.* pp. 115, 116, pl. xii.

ARDEIDÆ.

Herodias andamanensis (Zool. Rec. iv. p. 120) is identical with *H. concolor*. E. Blyth, *Ibis*, 1868, p. 133.

Ardea perplexa, *A. stellaris*, and *A. cinerea*, their remains figured. A. Milne-Edwards, *Ois. Foss. Fr.* pl. xcvi.

Botaurus stellaris breeding in Norfolk. T. E. Gunn, *Zool. S. S.* pp. 1220, 1221; in Buckinghamshire, A. C. Kennedy, *tom. cit.* pp. 1255, 1256.

Tigrisoma cabanisi is figured. P. L. Sclater & O. Salvin, *Ex. Orn.* pl. xlviii.

CICONIIDÆ.

Balaniceps rex feeds chiefly on fish, which it catches in company like the *Pelecani*, but stands in the water like the *Ardeidæ*. M. T. von Heuglin, *J. f. O.* 1868, p. 212.

Ciconia alba, its breeding in captivity: M. Schmidt, *Zool. Garten*, 1868, pp. 10-23, 41-51. Its life at large: —Krauss, *tom. cit.* pp. 127-136. Its habits in Courland: J. H. Kallow, *Bull. Soc. Imp. Nat. Mosc.* 1867, pp. 486-497.

Leptoptilus crumenifer, notes on, in North-eastern Africa. E. Marno, *Zool. Garten*, 1868, p. 242.

Platalea tenuirostris, Temm., should be called either *P. alba* or *P. cristata*, Scopoli. The name "*P. luzoniensis*, Scopoli," which seems to be an invention of Bonaparte's (*Consp. Av.* ii. p. 148), probably refers to the same species. A. Newton, *Ibis*, 1868, p. 257, note.

Platalea leucorodia is figured. J. Gould, *B. Gr. Br.* pt. xiii.

TANTALIDÆ.

Ibis. It must have been the intention of the founder of this genus to keep in it the only species to which the name, as a common name, was properly applicable—the species which the old Egyptians revered. Accordingly the *Tantalus aethiopicus* of Latham should be referred to the genus *Ibis*. J. H. Gurney, *Ibis*, 1868, p. 259.

Falcinellus igneus is figured. S. Diggles, *Orn. Austral.* pt. xviii.

ANSERES.

PHÆNICOPTERIDÆ.

Phœnicopterus rubidus is described as a new species from India, easily distinguished from *P. roseus* by its smaller stature and brighter plumage, the whole colour being a uniform bright pink instead of rosy-white, and the wing-coverts, upper tail-coverts, and under surface of the wing intensely bright—besides some other differences. H. W. Feilden, *Ibis*, 1868, pp. 495, 496. [Probably only *P. minor*, Temm.: T. C. Jerdon, *Ibis*, 1869, pp. 230-232. Differs materially from *P. minor*: G. R. Gray, *tom. cit.* p. 355, note.]

Phaeicopterus croizeti, *Palaeodus ambiguus*, *P. gracillipes*, *P. minutus*, *P. gobiath*, *P. crassipes*, *Agnopterus laurillardii*, and *Elornis littoralis* are figured. A. Milne-Edwards, Ois. Foss. Fr. pls. lxxx.-xc.

ANATIDÆ.

Anser segetum has occurred in India. E. Blyth, Ibis, 1868, p. 249.

Anser ferus, its variability under domestication: C. Darwin, Anim. and Pl. under Domestic. i. pp. 287-290. A humerus found in the Cambridge-shire fens, and one of a larger species in the gravel of the same county: J. F. Walker, Ann. & Mag. N. H. 4th ser. ii. p. 388.

Anser cygnoides, its parent form said to be unknown or extinct. C. Darwin, Anim. and Pl. under Domestic. i. p. 237. [Cf. Ibis, 1868, p. 218.]

Bernicla leucopsis has really occurred in North America. S. F. Baird, Am. Nat. 1868, p. 49.

Bernicla jubata, head figured. S. Diggles, Orn. Austral. pt. xviii.

Cereopsis novæ-hollandiæ, its breeding in confinement. E. Roger, Bull. Soc. Imp. d'Acclimat. 1868, pp. 501-503.

Exanthemops is proposed as a new genus for the reception of *Anser rossii*, Cassin (Proc. Acad. Philad. 1861, p. 72), on account of the wart-like excrescences with which its face is beset; and the bird is figured. D. G. Elliot, B. N. Am. pt. ix. [Cf. Ibis, 1868, pp. 345, 346.]

Plectropterus gambensis, not *P. rueppelli* [Ibis, 1868, p. 292], is the species found on the Shire River. P. L. Sclater, P. Z. S. 1868, pp. 261, 262; Ibis, 1868, p. 502.

SCHLEGEL, F. Die Schwäne. Zool. Garten, 1868, pp. 60-62.

Notes on the eight recognized species of *Cygnina*.

Cygnus passmorii (Zool. Rec. iv. p. 121) maintained to be distinct from *C. buccinator*. W. Hincks, P. Z. S. 1868, pp. 211-213.

Cygnus atratus and *C. olor* [?], hybrids between them. — Pissot, Bull. Soc. Imp. d'Acclimat. 1868, pp. 11, 12; Zool. Garten. 1868, pp. 189, 190.

Cygnus olor and *Anser cinereus*, Herr J. P. van Wickevoort-Crommelin's notes on the hybrids between them and between other species of *Anatidæ* (Zool. Rec. iv. p. 121) translated. Bull. Soc. Imp. d'Acclimat. 1868, pp. 780-786.

CORDEAUX, JOHN. An account of Wild Fowl killed at the Ashby Decoy, from September 1833 to April 1868. Zool. Sec. Ser. pp. 1378, 1379.

An interesting list of the members of six species of *Anas* (*A. boschas*, *A. crecca*, *A. penelope*, *A. clypeata*, *A. acuta*, and *A. strepera*) taken during thirty-five seasons at this celebrated Lincolnshire decoy. The largest number was 6357 in 1834-5, and next 6059 in 1852-3, the smallest was 936 in 1835-6, and next 1132 in 1836-7. *A. boschas* though usually, as might be expected, by far the most numerous species, was in many years surpassed by *A. crecca*.

Anas boschas, its variability under domestication, illustrated by figures of some of the bones. C. Darwin, Anim. and Pl. under Domestic. i. pp. 276-287.

Anas ioparcia, Philippi (Arch. f. Naturg. 1860, p. 24), is a hybrid between *A. boschas* [?] and *A. moschata*. R. A. Philippi, P. Z. S. 1868, p. 531.

Anas mascarinus is the name proposed for a species said to have formerly existed in a wild state in Réunion, but also declared to be a degenerate form

of the common European breed! A. Vinson, Bull. Soc. Imp. d'Acclimat. 1868, pp. 626, 627. [Qu. *Anas melleri* (Zool. Rec. i. p. 94) ?]

Aix sponsa, the manner in which the young reach the water. A. von Homeyer, J. f. O. 1868, pp. 356, 357.

Chaulelasmus streperus is figured. J. Gould, B. Gr. Br. pt. xiii.

Spatula rhynchotis is figured. S. Diggles, Orn. Austral. pt. xvii.

Heteronetta (Zool. Rec. iii. p. 112), the characters of the genus translated into German. E. von Martens, J. f. O. 1868, p. 67.

Eristatura vittata, Philippi (Arch. f. Naturg. 1860, p. 26), is, as has been already suggested by Mr. Sclater (P. Z. S. 1867, pp. 335, 336), only the young of *E. ferruginea*. R. A. Philippi, P. Z. S. 1868, p. 581.

Fuligula rufina, its occurrence in Somerset. G. F. Mathew, Zool. S. S. p. 1098; in Norfolk, H. Stevenson, *tom. cit.* p. 1128.

LARIDÆ.

Larus canus, further account of it (Zool. Rec. iv. pp. 122). H. Blake-Knox, Zool. S. S. pp. 1075-1088.

Larus hutchinsi, Richards, is believed to be a good species. E. Coues, Proc. Essex Inst. v. pp. 58, 59. Figured, with *L. brachyrhynchus*. D. G. Elliot, B. N. Am. pt. xii.

Rissa kotzebui and *R. nivea* are figured. *Id. op. cit.* pt. xi.

Larus minutus occurred in England unusually often in 1868, chiefly in the autumn. J. H. Gurney, jun., Zool. S. S. pp. 1295, 1379, 1424, 1462, 1482; G. B. Ashmead, *tom. cit.* p. 1462.

Xema sabini, its occurrence in Dublin Bay and in county Down. H. Blake-Knox, Zool. S. S. p. 1099.

Sterna fuliginosa, a description of its breeding-place (the so-called "Wide-awake Fair") at Ascension. R. M. Sperling, Ibis, 1868, pp. 286-288.

Sternula balanarum, Strickl. (Contr. Orn. 1852, p. 160), has occurred at Table Bay. E. L. Layard, Ibis, 1868, p. 248.

Sternula jerdoni is the name proposed for a bird from Burmah should it prove distinct from *S. minuta* (ex India). It may, however, be *S. orientalis* (Licht.). *Sterna innotata*, from the same country, is described as a new species with a position between *Gelochelidon* and *Onychoprion*. R. C. Beavan, Ibis, 1868, pp. 403, 404.

Hydrochelidon nigra, *H. leucoptera*, and *H. leucoparia* are figured. J. Gould, B. Gr. Br. pt. xiv.

PROCELLARIIDÆ.

GIGLIOLI, ENRICO, & SALVADORI, THOMMASO. Nuove specie di Procellaridi raccolte durante il viaggio fatto intorno al mondo negli anni 1865, 1866, 1867, 1868 dalla pirocorvetta italiana *Magenta*. Atti Soc. Ital. Sc. Nat. vol. xi. fasc. iii. 16 Sept. 1868. [English version (which was first actually printed), Ibis, 1869, pp. 61-68.]

Four species, and perhaps a fifth, are described as new. They are:—

Æstelata [lege *Æstelata*] *magenta*, from the Pacific between lat. 26° and 39° and long. 88° and 125° W., allied to *Procellaria rostrata*;

Æ [lege *Æ*] *arminjoniensis* from near Trinity Island in the South Atlantic, having many affinities with *P. neglecta*, Schlegel, and being also allied to *P. parvirostris*, Peale;

Æ. [lege Æ.] desfilippiana, from the coast of Peru, having affinities with *P. cooki*, Gray, *P. gavia*, Licht., *P. desolata*, Gmel., and *P. gularis*, Peale;

Æ. [lege Æ.] trinitatis, from near Trinity Island, belonging to Bonaparte's group *Pterodroma*;

And a *Puffinus*, from the South Atlantic, lat. 43°, long. 9° E., for which the name of *P. elegans* is proposed, should it prove to be a new species.

The diagnostic characters of most of these species are minute, and we feel that if we attempted an abstract of them we might be only misleading our readers.

Puffinus anglorum is figured. J. Gould, B. Gr. Br. pt. xiv.

Nectris fuliginosus and *N. amaurosoma* (Zool. Rec. i. p. 96) are figured. D. G. Elliot, B. N. Am. pt. ix.

Prigfinus cinereus and *Æstrelata* (potius *Æstrelata*) *hænitata* (Kuhl) are figured. *Id. op. cit.* pt. x.

PELECANIDÆ.

MILNE-EDWARDS, ALPHONSE. Note sur l'existence d'un Pélican de grand taille dans les tourbières d'Angleterre. Ann. Sc. Nat. Zoologie, 5e sér. viii. pp. 285-293, pl. 14. (English translation) Ibis, 1868, pp. 363-370. (Abstract) Comptes Rendus, 22 June, 1868, lxvi. pp. 1242-1244; R. Z. 1868, pp. 350-260; Ann. & Mag. N. H. 4th ser. ii. pp. 165, 166.

A bone in the Woodwardian Museum at Cambridge from the peat of the fens of Cambridgeshire proves to be that of a young individual of a large species of *Pelecanus*; but the author hesitates about recognizing it as distinct from *P. onocrotalus*. The specimen exhibited: A. Newton, P. Z. S. 1868, p. 2.

SLATER, P. L. Notes on the Pelicans living in the Society's Gardens. Proc. Zool. Soc. 1868, pp. 264-269, pls. xxv., xxvi.

Six or possibly seven species are named as living as above. These are *Pelecanus onocrotalus*, *P. mitratus*, *P. crispus*, *P. rufescens*, *P. conspicillatus*, and *P. fuscus*, of which the fourth and last are figured, together with portions of the head of the first, second, and fourth. A figure is also given of what Mr. Blyth regards as *P. javanicus*, Horsf., from a Syrian example. Notes on all these as well as on three others not exhibited in the Zoological Gardens are given, and a diagnostic list of the ten species which seem to the author to be well founded.

Pelecanus crispus has occurred for the third time in India. A. Hume, Ibis, 1868, pp. 235-239.

"*Graculus carbo*," from South Africa (I ayard, B. S. Afr. p. 380), is *G. lucidus* (Licht.); but possibly *G. carbo* occurs there as well. E. L. Layard, Ibis, 1868, pp. 120, 121.

Tachypetes minor (Gm.)? An example killed at Amoy minutely described. R. Swinhoe, Ibis, 1868, pp. 52-58.

COLYMBIDÆ.

Colymbus glacialis is believed to have bred in Scotland. J. A. H. Brown, Zool. Sec. Ser. pp. 1309, 1310, 1424.

SPHENISCIDÆ.

Notes on the breeding-places of *Aptenodytes pennanti*, *Pygosceles wagleri*, *Eudyptes nigricostis*, *E. chrysolophus*, and *Spheniscus magellanicus*, and the

great destruction of these birds in the Falkland Islands. A. A. Lecomte, P. Z. S. 1868, pp. 527, 528.

PODICIPIDÆ.

Podiceps micropterus is a new species, from Lake Titicaca in Bolivia, about the size of *P. rubricollis* [sc. *griseigena*], with a very stout bill and crest almost as in *Eudypetes*. It can be distinguished from every *Podiceps* by the extreme shortness of its wing (only 4 inches). J. Gould, P. Z. S. 1868, pp. 220, 221.

Podiceps affinis (Zool. Rec. iii. p. 115), its description translated into German. E. von Martens, J. f. O. 1868, p. 70.

Podiceps pekzeini is figured. H. Schlegel & F. P. L. Pollen, Rech. Faun. Madag. pl. 40.

Podiceps australis is figured. S. Diggles, Orn. Austral. pt. xx.

ALCIDÆ.

COUES, ELLIOTT. A Monograph of the *Alcidae*. Philadelphia: 1868. 8vo, pp. 81. [Separately printed from Proc. Acad. N. S. Philad. Jan. 1868*.]

On this treatise the author has undoubtedly spent much time and labour, but without (we think) the same happy result that has almost invariably attended his other works. After a few introductory remarks, he gives a review (in some respects very complete) of the literature relating to the family, and then proceeds to treat of its characters and subdivisions. He makes three subfamilies:—The first, *Alcinæ*, with *Alca* and *Uta*mania; the second, *Phalaridinæ* [lege *Phalaridinæ*], including *Fratercula*, *Lunda*, *Ceratorhyncha*, *Sagmatorhina*, *Simorhynchus*, and *Ptychorhamphus*; the third, *Urinæ* [lege *Urinæ*], containing *Mergulus*, *Synthliborhamphus*, *Brachyrhamphus*, *Uria*, and *Lomvia*. Of each of these groups the characters are concisely given. After this follow descriptions (often extremely minute and illustrated by outline woodcuts of the head) of the species, 33 in number, one of which is given as new, and two or three as somewhat doubtful. There are a few errors in this otherwise extremely valuable Monograph; some of them we have elsewhere noticed. [Cf. Ibis, 1868, pp. 483–485.]

STEENSTRUP, JAP. Matériaux pour servir à l'histoire de l'*Alca impennis* (L.) et Recherches sur les pays qu'il habitait. Bull. Soc. Orn. de la Suisse, tom. ii. 1re partie, pp. 5–70.

This is a French translation of the excellent monograph (Vidensk. Meddel. Naturhist. Forening i Kjöbenhavn, 1855, pp. 33–116) which has afforded help to so many investigators of this bird's history, and indeed was the first attempt to put together the known facts, so as to permit a correct view being taken of it. The work first (A) treats of the appearance of this species in the western waters of the Atlantic, (1) on the coast of Greenland and (2) in the Gulf of St. Lawrence and the Newfoundland seas. Then (B) the same is done with regard to the east side of the Atlantic, beginning with (1) Iceland, and proceeding to (2) the Færoes, (3) the Scotch Islands, and (4) the coast of Norway. A summary of the author's researches (C) on the geographical range of the species is then given, followed by a history (D) of the

* For the reason above given (p. 30, note), we are unable to give the precise reference.

name "Penguin," and its probable meaning and derivation; and the whole concludes with (E) considerations of the natural affinities of the bird, in the course of which the generic name *Gyralka* [p. 114, note, of the original] is suggested, should it be removed from the genus *Alca*.

The publication of this translation by the Swiss Ornithological Society is greatly to be applauded, for few were able to read the original, published as it was in Danish, though it had already appeared in German, partly in the 'Gelehrten Anzeigen der K. Bayerischen Akademie' (1860), and partly in the 'Bulletin de l'Academie Impériale de St. Pétersbourg' (1863). [Cf. *Ibis*, 1865, p. 228; 1868, p. 342.]

FATIO, VICTOR. Quelques Mots sur les exemplaires de l'*Alca impennis*, Oiseaux et Œufs qui se trouvent en Suisse. *Tom. cit.* pp. 73-79.

Three specimens of the skin and two of the eggs are described, and the size of the latter expressed according to the formula invented by the author (*Zool. Rec.* ii. p. 89).

— Liste des divers représentants de l'*Alca impennis* en Europe, Oiseaux, Squelettes et Œufs. *Tom. cit.* pp. 80-85.

The author enumerates 51 skins, 6 skeletons, and 60 eggs, which is below the mark, as the existence of 65 skins, 5 skeletons nearly complete (besides detached bones of at least 20 other individuals), and 61 eggs, in Europe alone, is known with certainty to us, this computation not including some specimens mentioned by him.

Alca impennis, notes on:—Worm's account and Thienemann's egg, R. König-Warthaussen, J. f. O. 1868, p. 247. Date of its supposed extinction, E. Newmann, *Zool. S. S.* pp. 1354, 1483. General notes, and correction of Thompson's account (B. Irel. iii. pp. 238, 239) of the Irish specimen, J. H. Gurney, jun., *tom. cit.* pp. 1442-1453. Its remains found in kitchen-middens in Maine and Massachusetts: J. Wyman, *Am. Nat.* 1868, pp. 561-584, and 622. [Cf. *Ibis*, 1869, p. 239.]

Mergulus alle is figured. J. Gould, B. Gr. Br. pt. xiv.

Uria craveri (*Zool. Rec.* iii. p. 115), its description translated into German. E. vom Martens, J. f. O. 1868, p. 70.

Phalaris poitacuda was taken alive in Sweden in Dec. 1860! [F. Wahlgren,] *Jägareförbundets nya Tidskrift*, 1867, p. 108; L. Olph-Galliard, R. Z. 1868, pp. 95, 96; C. J. Sundevall, *Ibis*, 1869, p. 221.

Simorhynchus cassini is a new species from Russian America, allied to *S. tetraculus*, but smaller, with the bill exceedingly compressed, and probably no crest. It is of a lead-colour, lighter below, and whitish on the abdomen. E. Coues, *Monogr. Alcida*, pp. 35, 45-46,

STRUTHIONES.

STRUTHIONIDÆ.

Struthio australis, from South Africa, is now formally recognized as distinct from the northern *S. camelus*, L., the differences having been pointed out by Mr. Sclater (*Trans. Zool. Soc.* iv. p. 354). J. H. Gurney, *Ibis*, 1868, pp. 253, 254.

Struthio camelus, particulars of its domestication in Algeria, from 1862 to 1867 inclusive. A. Hardy, *Bull. Soc. Imp. d'Acclimat.* 1868, pp. 108-109.

On the rearing of it in the same country, C. Rivière, *tom. cit.* pp. 639-645. Notes on it in North-eastern Africa, M. Marno, Zool. Garten, 1868, pp. 212-216. Its anatomy described in considerable detail, A. Macalister, Proc. R. Irish Acad. ix. pp. 1-24. The description of the muscular mechanism of its leg (Zool. Rec. ii. pp. 85-138) reprinted, with figures, S. Haughton, *tom. cit.* pp. 50-61.

RHEIDÆ.

Struthio rhea (sc. *Rhea americana*), its muscular anatomy described. S. Haughton, Proc. R. Irish Acad. ix. pp. 497-504.

CASUARIIDÆ.

Casuarus australis (cf. Zool. Rec. iii. p. 116, and iv. p. 125), a very fine specimen from Queensland exhibited, and the characters in which it differs from *C. galeatus* pointed out. P. L. Sclater, P. Z. S. 1868, pp. 376, 377. Seen at Rockingham Bay, E. P. Ramsay, *tom. cit.* p. 388.

Dromæus irroratus, its breeding in England. A. W. Bennett, Bull. Soc. Imp. d'Acclimat. 1868, pp. 682-688 [translated from 'Land and Water,' 2 May, 1868].

Dromæus novæ-hollandiæ, its muscular anatomy described. S. Haughton, Proc. R. Irish Acad. ix. pp. 487-497.

DINORNITHIDÆ.

Dinornis elephantopus, *D. rheides*, *D. crassus*, and *D. casuarinus*. Remarks on the sternum of these species to be subsequently published in the 'Zoological Transactions.' R. Owen, P. Z. S. 1868, p. 404.

Dinornis giganteus, *D. robustus*, *D. elephantopus*, *D. crassus*, *D. gracilis*, *D. casuarinus*, and *D. didiformis*, their skeletons in the Museum at Christchurch, New Zealand. J. Haast, J. f. O. 1868, pp. 244, 245. [Cf. Ibis, 1868, p. 504.]

Dinornis, geological note on a deposit containing its remains, with a section. Id. Monatsb. Akad. Wissensch. Berl. 1868, pp. 551-553.

ÆPYORNITHIDÆ.

BIANCONI, G. G. Appendice alla memoria intorno agli scritti di Marco Polo ed all' *Æpyornis maximus*. Mem. Accad. Sc. Bologna, 26 Marzo, 1868, pp. 483-520.

This appendix to a paper we before noticed (Zool. Rec. ii. p. 82) treats almost entirely of the veracity of Marco Polo's celebrated account of the "Roc," which the author maintains was the *Æpyornis* and a Vulture.

Æpyornis maxima, a tibia 64 centimètres long, and some portions of a larger one, a femur, several vertebræ, and the fragment of an egg, discovered by M. A. Grandidier, exhibited. H. Milne-Edwards, Comptes Rendus, 14 Dec. 1868, lxvii. pp. 1165-1167; R. Z. 1868, pp. 468, 469.

APTERYGIDÆ.

Apteryx mantelli, a male bird in the Zoological Gardens incubated two eggs, which came to nothing. A. D. Bartlett, Ibis, 1868, pp. 251, 504, P. Z. S. 1868, p. 329; Bull. Soc. Imp. d'Acclimat. 1868, pp. 536, 537.

Apteryx oweni in confinement. P. L. Sclater, P. Z. S. 1868, p. 319.

AVES

BY

ALFRED NEWTON, M.A., F.R.S., etc.

SEVERAL causes induce us to hope that the present 'Record' may be found more complete than any of those which have preceded it; and though, as before, we stand greatly indebted to the good offices of many kind friends, we believe we have omitted few works which could justly claim a place*. There seems to us no need to particularize any of the publications herein mentioned; and if, in the following pages, some are distinguished typographically, this is done on the responsibility of the Editor. The ornithology of the Palæarctic Region engrosses, as it most likely long will engross, the greatest share of attention; but it is extremely gratifying to find that constantly increasing interest is taken in that of remoter regions. We think, also, that there is manifest a growing desire on the part of ornithologists to become acquainted with each other's work before committing themselves to print; for it is certain that the flagrant cases of wilful neglect which some years ago were far from uncommon are now comparatively rare, if indeed they have any existence. We accordingly deem the present state of our science to be healthy; and with fresh labourers springing up on every side, while the elders (as in Mr. G. R. Gray's case) display their wonted activity, its most zealous cultivator need have few fears for the future.

BIBLIOGRAPHY AND CRITICISM.

HARTLAUB, G. Bericht über die Leistungen in der Naturgeschichte der Vögel während des Jahres 1868. Archiv für Naturg. xxxv. Band ii. pp. 105-132. Berlin: 1869.

It has hitherto been so great a pleasure for us to speak in the highest terms of the Reports executed by Dr. Hartlaub that it is with as much pain that we must notice some indications of

* The concluding *Heft* of the 'Journal für Ornithologie' for 1869 did not appear until after the first for 1870; and we have not been able to see a complete set of the 'Proceedings' of the Philadelphia Academy.

hasty compilation which we perceive in this the *Twenty-third* of the series. It is, however, no part of our duty to criticize minutely the publications we have to record; and indeed it would be obviously indecorous for us to do so in this case of a work having the same object as our own.

BARBOZA DU BOCAGE. Algumas observações e additamentos ao artigo do sr. A. C. SMITH. [See "PALÆARCTIC REGION."]

BULLER, W. Notes on Herr Finsch's Review of Mr. Walter Buller's Essay on New Zealand Ornithology. [See "AUSTRALIAN REGION."]

DROSTE-HÜLSHOFF, FERD. BARON. Uebersicht über ornithologische Publicationen des Jahres 1868 welche die europäische Ornithologie berühren. Bericht XVII. Versamml. Deutsch. Ornith.-Gesellsch. pp. 17-23.

By taking a very liberal view of what relates to European Ornithology, the author is able to enumerate upwards of 50 papers or separate works on the subject, respecting most of which a few judicious comments are added.

FITZINGER, L. J. Bemerkungen über die uns zu Gebote stehenden Mittel zu einer möglichst raschen und sichern Bestimmung der Säugethiere und Vögel. Zoolog. Garten, 1869, pp. 152-155.

Prof. Reichenbach's work is alone named for ornithology.

MARTENS, E. VON. Ueber Thiernamen. *Tom. cit.* pp. 49-53.

The passage above indicated refers to the only ornithological portion, coming within our present limits, of a most interesting series of papers, and treats of the words in various languages used for the second class of vertebrates.

SALVIN, OSBERT. Notes on Mr. Lawrence's List of Costa Rica Birds. [See "NEOTROPICAL REGION."]

WALDEN, ARTHUR, Viscount. Remarks on Dr. Stoliczka's "Ornithological Observations in the Sutlej Valley." [See "INDIAN REGION."]

THE GENERAL SUBJECT.

BENTHELOT, SABIN. Les Oiseaux migrateurs. Bull. Soc. Imp. d'Acclimat. 1869, pp. 660-675.

BLEEKER, P. Naamlijst der Vogelen in het Museum van het Koninklijk zoölogisch botanisch Genootschap te 'sGravenhage. Verslag van het K. Z.-B. Genootsch. van Akklim. 1869, pp. 77-103.

The names of about 750 species given, with the number of specimens of each, their locality, and a reference, when possible, to Bonaparte's 'Conspectus Avium.'

CLAUS, CARL. Grundzüge der Zoologie zum Gebrauche an Universitäten und höhern Lehranstalten. Leitfaden zur Einführung in das wissenschaftliche Studium der Zoologie. Marburg und Leipzig: 1868. 8vo, pp. 839.

The ornithological portion (pp. 643-719) is fairly treated as to its extent, and the introductory remarks on the nature and properties of the class are judicious; but not so much is to be said for the systematic portion, though the author deals with that in considerable detail, giving even the characters of families, and at least the names of the more remarkable species thereto belonging. The general classification of Birds is in eight orders—*Natatores*, *Grallatores*, *Cursores*, *Gallinacei*, *Columbæ*, *Scansores*, *Ambulatores*, and *Raptatores*.

CORDEAUX, JOHN. Notes on Bird-Parasites. Zoologist, Sec. Ser. pp. 1583-1588.

Some of these are interesting, and from the ornithologist's rather than the entomologist's point of view.

DROSTE-HÜLFSHOFF, FERD. BARON. Die Vertretung die Vögelwelt im höchsten Norden. Bericht XVII. Versamml. Deutsch. Ornith.-Gesellsch. pp. 48-62.

The author discusses the question of the avifauna of the North Pole, and gives a list of 28 species which, he thinks, will certainly be found there, while 12 more may possibly reach that much-desired spot. [*Cf. Ibis*, 1870, p. 130.]

GRAY, G. R. Hand-List of Genera and Species of Birds, distinguishing those contained in the British Museum. Part I. *Accipitres*, *Fissirostres*, *Tenuirostres*, and *Dentirostres*. London: 1869. 8vo, pp. 404.

This, the first part of a work which has occupied its veteran author for many years, is so certain to be in the hands of every working ornithologist that we do not feel compelled to expatiate upon it at such a length as its importance would otherwise require. Its object is to give a complete list of all the genera with their subdivisions, and of all the species under the groups to which they are supposed to belong,—such genera and species as are contained in the British Museum Collection being typographically distinguished. In this way about 1500 genera and nearly 7000 species are included, the name of the author to whom each is due and the date of the genus being given, while some of the principal synonyms and the localities are added, as well as references to figures of the species, but not to descriptions. Herein lies the chief defect; for had references to the descriptions been included, the value of the book as a help to work-

ing ornithologists would have been incalculably greater, and at the same time facility would have been afforded to the author of correcting many of the errors it contains, errors which, according to the method he has adopted, can as a rule only be detected by an amount of labour nearly equal to that bestowed on the compilation itself. For the same reason it is impossible for us to say how many species here receive names for the first time. We believe the number to be large; and therefore the matter is to be the more regretted, especially as no descriptions are appended—a want of consideration to other ornithologists which they will hardly fail to condemn. Yet while our duty obliges us to mention these shortcomings, and to point out what, as it seems to us, would have made the work worthy of the highest praise, we have yet the satisfaction of maintaining that according to the method pursued, and so far as its plan admits, it is a really honest performance, and one which in that aspect does great credit to its author, who, we trust, will in time bring out another and an improved edition with the information added, which, as we have above indicated, is now so much needed. The arrangement followed is, as might be expected, mainly that of the author's previous works; but the want of an index, to at least the genera, is most urgent, and will, we hope, be supplied in the concluding part, which may be shortly expected. [*Cf.* *Ibis*, 1869, p. 464; 1870, pp. 116–118.]

HUTTON, F. W. On the Mechanical Principles involved in the Sailing Flight of the Albatros. *Philos. Mag.* Aug. 1869, pp. 130–136.

This is in some sort a continuation of the treatise before noticed (*Zool. Rec.* ii. p. 56); but the subject is handled solely from a mathematical point of view. Hence we are prohibited from giving an abstract of the author's reasoning; but we deem ourselves bound to mention it here among the other papers which have reference to the faculty and the laws of flight. [*Cf.* *Ibis*, 1870, p. 122; *Zool. Rec.* iv. pp. 45, 46, 50; *et infra*, KRARUP-HANSEN, C. J. L., *et* MAREY, —.]

KRARUP-HANSEN, C. J. L. Essay to a theory of the Flight of Birds and Insects, popular treatise, illustrated by woodcuts. Copenhagen: 1869. 8vo, pp. 42.

This appears to be the translation of an original which we have not seen. The subject is treated mechanically; and thereby we may be excused from giving any abstract of the author's theory. [*Cf.* *Ibis*, 1870.]

MAREY, —. Mémoire sur le vol des insectes et des oiseaux. *Ann. Sc. Nat.* 5e sér. xii. pp. 49–150, figs. 42. Revised issue. Originally published in '*Revue des Cours Scienti-*

figures.' 6me Année, 1869, the part relating to Birds in nos. 37 (14 Aug.), 38 (21 Aug.), 41 (11 Sept.), 44 (2 Oct.), pp. 578-583, 601-604, 646-656, 700-704.

This admirable paper shows how the author by most ingenious contrivances caused various birds to record the movements of their wings so as to exhibit the actual direction and duration of the strokes. To give an abstract of it within our present limits is impossible, and all interested in the subject must refer to the paper itself. [Cf. *Ibis*, 1870, pp. 266-268.]

MILNE-EDWARDS, A. *Recherches Anatomiques et Paléontologiques pour servir à l'histoire des Oiseaux Fossiles de la France.* Livr. 26-30 *. Paris: 1869. 4to, plates.

The progress made in this great work during the past year has not been quite so rapid as before. Having formerly noticed it at some length (*Zool. Rec.* iv. pp. 49, 50, v. p. 36), we have only now to remark that, pursuing the same method as hitherto, the author concludes his account of the "*Ardéides*" and then of the "*Rallides*" (*Rallidæ*), after which he begins the consideration of the "*Gallinacés*," in the middle of which the work at present breaks off. Of *Rallidæ*, 8 new species are described, 6 of which are from Miocene beds, and the remaining 2, one of them being the type of a new genus, from the Eocene. Many remains of "*Gallinacés*" and some of "*Colombides*" are figured; and the fossil species will be found named in our special part under *Columbidæ*, *Phasianidæ*, *Tetraonidæ*, and *Pteroclidæ*; but as yet the letterpress has not reached them.

—. *Oiseaux Fossiles.* *Dict. Univers. d'hist. nat.* Deuxième édition, ix. pp. 671-719. Paris: May 1869. 8vo.

A general account of Fossil Ornithology so far as the subject is yet known, beginning with the *ornithichnites* of the Trias, proceeding to the bird of the Jura formation—*Archæopteryx*, those of the Cretaceous series, of the Tertiary, including the Eocene, Miocene, and Pliocene periods, and so on to the species but recently extinct. As may be expected from the author's intimate acquaintance with his subject, even to the most minute details, this treatise is extremely well executed.

NEWTON, ALFRED. *The Strickland Collection in the University of Cambridge.* *Ibis*, 1869, pp. 320-324, pl. ix.

A short notice of the collection of the late Hugh Edwin Strickland, recently presented by his widow to the University of Cambridge and now in its Museum, where it is lodged in cabinets having their drawers made on the "interchangeable" principle first suggested by Mr. Salvin. The collection contains 5802 specimens, referable to 3031 species. Occasion is taken to

* Sheets 10-12 inclusive of vol. ii. have apparently not yet been published.

figure a species, belonging to *Picidae*, first described by Strickland.

RUSS, KARL. Vorläufige Mittheilungen über die Zucht fremdländischer Vögel. Journ. für Orn. 1869, pp. 73-82.

Concerns many of the exotic species of *Plocidae* and *Fringillide* commonly kept in confinement.

SCLATER, P. L. On the Breeding of Birds in the Gardens of the Zoological Society of London during the past Twenty Years. Proc. Zool. Soc. 1869, pp. 626-629.

A similar paper to that on mammals before noticed (Zool. Rec. v. p. 10), consisting of two Tables—the first showing the number of species of birds (104, *errore* 108) that have bred, and the number of times (671) they have produced young; the second, the number of species exhibited (720) in comparison with those that have bred, being on the whole 1 in 6.6.

SCLATER, P. L., and SALVIN, O. Exotic Ornithology. Parts IX.-XIII. London: 1869. Imp. 4to, pp. 129-204, pls. lxxv.-c.

These five parts * complete the work of which we have spoken several times before (Zool. Rec. iii. p. 48; iv. p. 51, v. p. 38). All the species included in them are Neotropical, and will be noticed under the families to which they belong. The entire number of species figured in the whole work is 104, referred to 51 genera; and in most cases a systematic list of the other American species of the same genus is appended to the final illustration of each. All the plates are by Mr. Smit. [*Cf. Ibis*, 1870, pp. 262-264.]

SELENKA, EMIL. Dr. H. G. BRONN's Klassen und Ordnungen des Thier-Reichs, wissenschaftlich dargestellt in Wort und Bild. Sechster Band. IV. Abtheilung. Vögel: *Aves*. 1, 2 Lieferungen. Leipzig und Heidelberg: 1869. 8vo, pp. 80, pls. 6.

These two parts form the beginning of what will apparently be a very good general work on the class, the best of its kind that we have seen. The introduction gives a concise notice of the chief general works on the subject; and then follows a treatise on the anatomy of birds, wherein the author shows that he is sufficiently acquainted with the latest investigations of foreign as well as of German writers. This is still incomplete, but is of a very promising character. The subjects of the plates too (all at present anatomical) are well selected and clearly drawn, considering their small size. [*Cf. Zool. Garten*, 1869, p. 160; *Ibis*, 1870.]

* Part IX., containing pp. 129-144 and pls. lxxv.-lxxii., though bearing date "December, 1868," was not, we believe, published till 1869.

PALÆARCTIC REGION.

ANDERSON, THOMAS. [See GRAY, ROBERT.]

BARBOZA DU BOCAGE. Algumas observações e additamentos ao artigo do sr. A. C. SMITH intitulado "A Sketch of the Birds of Portugal." Journ. Sc. Math. Phys. e Nat. Lisboa, 1869, pp. 214-219.

Mr. Smith's paper was noticed last year (Zool. Rec. v. pp. 43, 44). Prof. du Bocage makes some observations, generally favourable, upon it, but notices an error due to the present writer, and adds 44 species to the Portuguese list. [Cf. Ibis, 1870, pp. 134, 266.]

BARTH, G. R. Bericht über eine nach Lofoten und Vesteraalen unternommene Reise, in freier Uebersetzung mit nachträglichen Bemerkungen von F. BOIE. Journ. für Orn. 1869, pp. 82-105.

A good contribution to Norwegian ornithology, relating as it does to a chain of islands so remarkable, and so seldom visited for any length of time, as the Loffodens. It is also with peculiar pleasure that we see associated with the traveller a name so venerable as that of the naturalist who, more than fifty years ago, investigated the ornithology of this part of Norway. The species observed were 81 in number, being 7 fewer than were seen by Messrs. F. and P. Godman at Bodö, on the other side of the Vest Fjord (Ibis, 1861, pp. 77-92). The observations on *Lagopus subalpina* [sc. *albus*] seem to be particularly worthy of attention.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia ad illustrazione della raccolta ornitologica dei fratelli ERCOLE ed ERNESTO TURATI con tavole litografate e colorate prese dal vero da O. DRESSLER. Milano: 1869. Folio. Vol. ii. fascicoli x.-xxiii.

This work is continued with the same spirit as before (Zool. Rec. v. p. 39). The species whose young and eggs are figured will be found under "NEOSSOLOGY" and "OOLOGY."

BOIE, F. [See BARTH, G. R.]

"BONIZZI, PAOLO. Catalogo degli Uccelli del Modenese. Modena: 1868. 8vo."

We only know of the existence of this from a reference (p. 145, note) in Prof. Doderlein's paper (*ut infra*), whence it appears that 224 species are included in the list.

BORGREVE, BERNARD. Die Vogel-fauna von Norddeutschland. Eine kritische Musterung der europäischen Vogel-Arten nach dem Gesichtspunkte ihrer Verbreitung über das nördliche Deutschland. Unter Benützung der einschlägigen Literatur und nach eigenen Beobachtungen bearbeitet. Berlin: 1869. 8vo, pp. 187.

This work is divided into two portions,—(i.) the Generalities of the subject, containing disquisitions on (1) various preliminary questions, (2) the conditions of local distribution, (3) its temporary changes and (4) the classification and enumeration of the species according to their distribution in North Germany; and (ii.) the Specialities, wherein the various birds are dealt with systematically. Herein 490 species are included, and 5 more added in a supplement. Much care seems to have been bestowed on the whole. [Cf. Zool. Garten, 1869, pp. 223, 224; Ibis, 1870, p. 128.]

BOWDEN, J. The Naturalist in Norway; or, Notes on the wild Animals, Birds, Fishes, and Plants of that Country. London: 1869. 8vo, pp. 263.

A popular compilation of the worst kind. [Cf. Ibis, 1870, pp. 122, 123.]

BROWN, FRANCIS H. Some Observations on the Fauna of Madeira. Proc. Boston Soc. N. H. 1868, pp. 205-214.

The list of birds reprinted from the well-known one by Mr. E. Vernon-Harcourt, and no new ornithological fact recorded.

CROMMELIN, J. P. VAN WICKEVOORT. Notes ornithologiques sur la Faune des Pays-Bas. Arch. Néerland. iv. (1869) pp. 231-238.

A series of comments, chiefly on the works of Prof. Schlegel and MM. van Bemmelen and Albarda (Bouwstoffen voor eene Fauna van Nederland, ii., iii.) on the birds of Holland, with the latter of which we are not acquainted. The remarks show much research, and often contain information of value; but the opinions of the author on nomenclature are not likely to be generally adopted in this country. [Cf. Ibis, 1870, p. 270.]

——. Remarques sur la Faune ornithologique de la Hollande. *Tom. cit.* pp. 379-398.

This may be regarded as a supplement to Baron Droste's work [*vide infra*] from a Dutch point of view.

DAVID, ARMAND. Journal d'un Voyage en Mongolie fait en 1866. Nouv. Archives du Muséum, Bulletin, iii. pp. 18-96, pl. 4 (map), iv. pp. 3-72, pls. 1, 2 (maps).

This paper contains the most important contribution to the zoology of Northern China that has yet been made. In it (iii. pp. 29-41) is the best catalogue of the birds hitherto observed near Peking, including 295 species, many of which are not named, though it is probable that they can be referred to published descriptions; and indeed some are identified [apparently by M. J. Verreaux]. The only one which seems to receive a new name belongs to *Motacillidae*. One of the most interesting discoveries is that of a species of Swan (see *Anatidae*), certainly new to the Old World. But the Journal itself contains

numerous notices on the birds met with by the author in travelling (1) from Pekin to Seu-en-hwa-foo (iii. pp. 44-96), and during (2) his first and (3) second exploring expeditions to the Woorato country (iv. pp. 3-32, 32-51), and (4) excursion around Woo-tang-jiao (pp. 51-72), the narrative of which is, so far as we have seen, unfinished. The maps show the various itineraries.

DODERLEIN, PIETRO. Avifaune del Modenese e della Sicilia ossia Catalogo ragionato e comparativo delle varie specie di Uccelli che si rinvencono in permanenza o di passaggio nelle Provincie di Modena, di Reggio e nella Sicilia. Giorn. Sc. Nat. ed Econom. Istit. Tecn. Palermo, v. (1869) pp. 137-195.

The introduction states that 250 species will be enumerated in the Modenese list, and 300 in the Sicilian; but the portion of the paper as yet published extends to 58, of which 45 belong to Modena and 52 to Sicily. A good deal of bibliographical information is contained in the introductory observations, as well as some comparative lists of the birds of different parts of Italy and its islands; and the notes on the several species seem, in most cases, to be to the point.

DRAKE, C. F. TYRWHITT. Further Notes on the Birds of Morocco. Ibis, 1869, pp. 147-154.

In continuation of the paper before mentioned (Zool. Rec. iv. p. 53), which referred to the districts of Tangier and Tetuan. The author has since travelled along the coast from Tetuan to Mazagan, thence inward to the city of Morocco, and so to Mogador. After a brief description of the countries traversed, a list is given of the species (27 in number) not before observed by him, of which the most noteworthy are *Melierax polyzonus*, *Galerita macrorhyncha*, and *Otis tarda*.

DROSTE-HÜLFSSHOF, FERD. BARON. Die Vogelwelt der Nordseeinsel Borkum. Nebst einer vergleichenden Uebersicht der in den südlichen Nordseeländern vorkommenden Vögel. Münster: 1869. 8vo, pp. 389, 16, plate and map.

A very complete ornithological monograph of the island of Borkum, the topography of which is fully treated, and essays on various matters in connexion with the subject, some having before appeared (Zool. Rec. ii. p. 62, iii. p. 49, v. p. 39), introduced. About 220 species are mentioned, and abundant information respecting the water-birds, which form the majority, is given. An appendix is added, consisting of a comparative list of the birds of the south coast of the North Sea and of the Baltic. The plate represents a scene on Rottum; and the map is of Borkum and the parts adjacent. [Cf. Rev. Zool. 1869, p. 365; Zool. Garten, 1869, p. 223; Bericht XVII. Versamml. D. O. G. pp. 24-27; Ibis, 1870, pp. 128, 129.]

DEOSTE-HÜLPSSHOFF, FERD. BARON. Eine Fahrt nach Rottum. Zoolog. Garten, 1869, pp. 304-309.

The species mentioned are only such as might be expected to occur on the island.

———. Liste seltenerer Vögel, welche in Ostfriesland vorgekommen sind. Journ. für Orn. 1868, pp. 405-407. [Not published till 1869.]

Chiefly of local interest.

———. Enten- und Strandvögelfang in Stellnitzen. *Op. cit.* 1869, pp. 279-283.

On the mode of catching *Limicolæ* and *Anatidæ* in stake-nets on Borkum.

———. Die Ganzjagd am Dollart. *Tom. cit.* pp. 283-285.

Translated from the Dutch. [Cf. Zool. Rec. iv. p. 121.]

———. [See also MUELLER, H. C.]

ELWES, H. J. The Bird-Stations of the Outer Hebrides. *Ibis*, 1869, pp. 20-37.

A very interesting paper, but not requiring any especial notice.

FRITSCH, ANTON. Ornithologische Notizen aus Böhmen. Journ. für Orn. 1869, pp. 45-47.

Nothing of very particular interest.

GALLIARD, LÉON OLPHE. Oiseau nouveau pour la faune Européenne. Rev. et Mag. de Zool. 1869, pp. 363-365. [*Muscicapidæ*.]

GOEBEL, H. Briefliches aus Süd-Russland. Journ. für Orn. 1869, pp. 318-320.

The most noteworthy fact mentioned is the breeding of a *Turdus*, supposed to be a Siberian species, in the Government of Archangel. From Southern Russia the news is unimportant.

———. Notizen über drei Vögel des Archangelschen Gouvernements. *Tom. cit.* pp. 320-322. [*Mergus serrator*, *Spatula clypeata*, and *Erythropus vespertinus*.]

GOULD, J. The Birds of Great Britain. Parts xv. and xvi. London: 1869.

The two parts published during the past year (bearing as usual the respective dates of 1st Aug. and 1st Sept.) are fully equal, if not superior, to any that have appeared. The species figured are noticed under the families to which they belong. [Cf. *Ibis*, 1870, pp. 120, 121.]

GRAY, ROBERT, and ANDERSON, THOMAS. The Birds of Ayrshire and Wigtownshire. Glasgow: 1869. 8vo, pp. 62. Reprinted from Proc. Nat. Hist. Soc. Glasgow, i. pp. 269-324.

The introduction gives a very fair account of the natural features of the two counties, in which at least 196 species have been noticed. The recently passed Act of Parliament (32 and

33 Vict. cap. 17) for the preservation of Sea-birds is reprinted in the concluding remarks. [Cf. *Ibis*, 1870, pp. 125, 126.]

HOMAYER, EUGEN VON. Beiträge zur Kenntniss der Vögel Ostsibiriens und des Amurlandes. *Journ. für Orn.* 1869, pp. 48–61, 119–125, 169–174.

A continuation of this useful digest, which we noticed last year (*Zool. Rec.* v. p. 41), 79 species being treated in the three articles now cited.

HOYNINGEN-HUENE, ALEXANDER, BARON. Bericht über die Ankunft der Zugvögel in Estland, sowie Notizen über das Nisten einiger Vögel in der Umgegend von Lechts im Jahre 1868. *Journ. für Orn.* 1869, pp. 18–21.

Of local interest only.

KRÜPER, TH. Beitrag zur Ornithologie Klein-Asiens. *Journ. für Orn.* 1869, pp. 21–45.

Very welcome remarks on the ornithology of this little-known country,—those on *Accipiter brevipes*, *Buteo ferox*, *Lanius personatus*, *Saxicola saltatrix*, *Aedon familiaris*, and *Bessornis gutturalis* especially.

MALMGREN, A. J. Ornithologiska Notiser. Öfvers. Finska Vet.-Soc. Förhandl. 1869, no. i. (pp. 6).

Relates to the occurrence in Finland of a species of *Falconidæ* and two of *Sylviidæ*. [Cf. *Ibis*, 1870, p. 132.]

MEVES, W. Bidrag till Sveriges Ornithologi. Berättelse om en resa till Öland och Skåne. Öfvers. K. Vetensk.-Ak. Förhandl. 1868, pp. 251–293.

The results of a journey, in 1867, to Öland and Scania, which gave the author opportunity of making some very good investigations, possessing, however, rather a local than a general interest. Still the paper is of importance to those engaged on Scandinavian ornithology, and Herr Meves's observations are well known to be trustworthy, while his remarks are generally to the point. [Cf. *J. f. O.* 1869, pp. 390–392; *Ibis*, 1870.]

MUELLER, H. C. Vogelfauna der Färöer, aus dem Dänischen übersetzt und mit Anmerkungen versehen von FRED. BARON VON DROSTE. *Journ. für Orn.* 1869, pp. 107–118, 341–355, 381–390*.

The original appeared in 'Videnskablige Meddelelser fra den naturhistoriske Forening i Kjöbenhavn' for 1862 (pp. 1–78), and is of very great excellence, from the intimate knowledge of the birds of the Färöes possessed by its author, who has resided there all his life. The species included in their fauna are 124 in number; and the translator's notes have generally reference to the distribution of the birds in Iceland, Scotland, or Norway.

* The last portion not published till 1870.

"NINNI, A. P. Catalogo degli Uccelli del Veneto. Faun., Flor. e Gea del Veneto e del Trentino. Venetia: 1867. 8vo. (In course of publication.)"

This we have not seen, and we only quote it from a reference (p. 144, note) in Prof. Doderlein's paper (*ut supra*).

NOLL, F. C. Helgoland. Naturhistorische Skizze. Zoolog. Garten, 1869, pp. 109-117, 234-244.

Ornithology is scarcely noticed in these articles.

RODD, E. H. A List of British Birds as a Guide to the Ornithology of Cornwall, &c. Second Edition. London and Penzance: 1869. 8vo, pp. 51.

Some additions are made to the former edition (Zool. Rec. iv. p. 56); but few of its errors, typographical or otherwise, are corrected. [Cf. Ibis, 1870, p. 264.]

SABANÁEFF, LEONIDA. Materialöi dlia Faunöi Jaroslafski guberni. Bull. Soc. Imp. Nat. de Moscou, xli. 1868, pp. 202-243, 383-405.

A continuation of the articles noticed last year (Zool. Rec. v. p. 43), beginning with an account of the changes in the fauna according to season. The various birds are divided and subdivided into categories, such as migrants occasionally remaining, and pure migrants, residents, passing migrants, winter visitors, (p. 208) those which are comparatively resident, those changing their quarters from summer to winter, without really migrating, pure nomads, partly nomads, sometimes residents, but not always wintering. A table is also given (p. 214) of the species which haunt the pine-forests, the larch-forests, and the neighbourhood of houses. Another chapter treats of the spring-fauna (p. 216), remarking on the species which arrive in companies, and those that come as stragglers, noticing also the difference between the spring and summer fauna. Then follows (p. 122) an account of the autumnal fauna and the migration of birds which breed in the district; *Picus leucnotus* and *P. tridactylus* are common at that season, and *Accentor montanellus*, which also breeds there, has been observed in October. The next chapter (p. 231) treats of the fauna as affected by the natural features of the country, recounting the species which inhabit the forests, the open country, and so forth. We have then (p. 383) an account of the general distribution of the animals and of the increase and decrease of their numbers, with a table (p. 399) showing those which are fast decreasing owing to human interference (among which are the *Laridæ*), those which are decreasing notwithstanding certain favourable circumstances, those which are increasing, and those which are decreasing owing to the destruction of the forests. The last chapter (p. 400) contains a general summary and a comparison

of the faunas of the north-eastern and south-western districts, with notes on the general distribution of the species*.

SALVADORI, T. Degli uccelli avventizi in Italia. Atti Soc. Ital. Sc. Nat. xii. (24 Aug. 1869) pp. 4.

The stragglers mentioned in this portion are all *Accipitres*. The most remarkable is *Buteo ferox*.

SAUNDERS, HOWARD. Ornithological Rambles in Spain. Ibis, 1869, pp. 170-186.

The notes refer to the district south of the Sierra Morena, where the author passed the winter of 1867-68 and following spring. They relate to several very interesting species and their nidification. Mention is made of a "variety" of a species of *Procellariidæ*, which seems hitherto to have escaped description.

——. Notes on the Ornithology of Italy and Spain. *Tom. cit.* pp. 391-403.

These were made in 1868-69; and the Italian observations relate chiefly to specimens in museums, while the Spanish are rather field-notes, and refer to the neighbourhood of Aranjuez as well as to the south.

SAXBY, H. L. Ornithological Notes from Shetland. Zoologist, Sec. Ser. pp. 1760-1764.

In continuation of those before noticed (Zool. Rec. iii. p. 52, iv. p. 56). *Asio otus*, *Accentor modularis*, and *Coturnix communis*, the last breeding, are recorded for the first time as visitors.

SCHACHT, H. Ein Jahr der Beobachtung des Vogellebens im Teutoburger Walde. Zoolog. Garten, 1869, pp. 247-251.

Extracts from an ornithological journal kept in 1867-68, but apparently containing nothing of more than local interest.

SMITH, CECIL. The Birds of Somersetshire. London: 1869. 8vo, pp. 623.

Each species found in the county, and there are 216 of them enumerated by the author, is described by him; but the book does not give such an account of the natural features of the country as is required for a good local work. [*Cf.* Ibis, 1870, pp. 124, 125.]

SNELL, F. H. Parallele zwischen der Vogelfauna des Taunus und der Wetterau. Zoolog. Garten, 1869, pp. 321-328, 354-362.

In continuation of the paper before noticed (Zool. Rec. iii. p. 52), and of not much more than local interest.

* As before, we owe this abstract to the kindness of Mr. H. E. Dresser.

STERLAND, J. W. The Birds of Sherwood Forest, with Notes on their Habits, Nesting, Migrations, &c. London: 1869. 8vo, pp. 244.

The species observed in the district, some perhaps on authority too slight, are 172 in number. Some remarks, from original observation, on the structure and functions of the so-called "oil-gland" in birds are added. [*Cf.* *Ibis*, 1870, pp. 123, 124; *Zool. S. S.* pp. 1881-1888.]

STÖLKER, CARL. Ornithologische Fragmente aus Florenz. Journ. für Orn. 1869, pp. 337-339.
Unimportant.

SUNDEVALL, C. J. Svenska Foglarna. Part xx. Stockholm: 1869. Oblong 4to.

Since we last noticed this work (*Zool. Rec.* iv. p. 56), only one part has appeared. It contains half-sheets 61-66, and plates lxxiv.-lxxvi. and lxxx.

Tschusi, VICTOR VON. Ueber einige Vögel des Riesengebirges. Journ. für Orn. 1869, pp. 224-234.

A supplement to Baron Alexander von Homeyer's excursions on the boundary of Bohemia and Silesia (*Zool. Rec.* ii. p. 64), containing a rather interesting account of the birds of the Giant Mountains, with criticisms on the works of Drs. Gloger, Palliardi, and Hoser.

——. Bemerkungen über einige Vögel Niederösterreichs. *Tom. cit.* pp. 234-241.

Except some notes on the breeding of *Nucifraga caryocatactes*, none of these remarks require special mention.

WRIGHT, CHARLES A. Third Appendix to a List of Birds observed in Malta and Gozo. *Ibis*, 1869, pp. 245-256.

In continuation of the papers before noticed (*Zool. Rec.* i. pp. 46, 47, ii. p. 69). Nine more species are added to the list, and some severe criticisms made on Mr. Grant's work (*op. cit.* iii. p. 50).

ETHIOPIAN REGION.

ANTINORI, ORAZIO. Beschreibung und Verzeichniss, u. s. w. Journ. für Orn. 1869, pp. 327-333.

In continuation of the translation before noticed (*Zool. Rec.* ii. p. 69, iii. p. 53, iv. pp. 57, 58).

AYRES, THOMAS. Notes on Birds of the Territory of the Transvaal Republic. *Ibis*, 1869, pp. 286-303.

The names have been determined by Mr. J. H. Gurney, who has added some valuable notes. The collection includes 66 species; but none require further notice here.

BARBOZA DU BOCAGE, J. V. Oiseaux nouveaux de l'Afrique occidentale. Proc. Zool. Soc. 1868, pp. 436, 437, pl. xxix. Descriptions of 3 species belonging to *Turdidæ* (2) and *Capitonidæ*, and a nominal list of 11 others sent home by Senhor Anchieta.

BLANFORD, W. T. Descriptions of five Birds . . . from Abyssinia. Ann. & Mag. N. H. 4th ser. iv. pp. 329-330.

[See *Hirundinidæ*, *Sylviidæ* (2), *Alaudidæ*, and *Fringillidæ*.]

CABANIS, J. Baron C. C. von der Decken's Reisen in Ost-Afrika. Dritter Band, Wissenschaftliche Ergebnisse. Erster Abtheilung. Vögel, pp. 19-52, tabb. xviii. Leipzig und Heidelberg: 1869. Imp. 8vo.

This contains an account of the ornithological collection made by the ill-fated Baron von der Decken during his arduous travels in East Africa, and is elaborated in the author's usual excellent manner. The collection contains examples of 126 species, whereof 21, for which see *Falconidæ*, *Bucerotidæ*, *Laniidæ* (5), *Turdidæ*, *Sylviidæ* (3), *Ploceidæ* (3), *Fringillidæ*, *Tetraonidæ*, *Pteroclidæ*, *Charadriidæ*, *Otididæ*, and *Ardeidæ* (2), are described as new. These last were, all but one, briefly but sufficiently characterized at a meeting of the Deutsche ornithologische Gesellschaft zu Berlin, held 7th Oct. 1868; and their diagnoses are printed in the concluding *Heft* of the 'Journal für Ornithologie' for that year (pp. 411-414), which did not, however, as we have before mentioned (Zool. Rec. v. pp. 29, 30, note), appear until 1869, nor indeed until after the printing of the work, since a name (see *Fringillidæ*) therein conferred was, on the discovery of its former use, changed in the paper in the 'Journal.'

FINSCH, OTTO. Ueber eine Vögelsammlung aus Westafrika. Journ. für Orn. 1869, pp. 334-337.

A list, with notes, of a small collection, containing 22 species, made on the Gold Coast by Herr Max Sinteniz. One species (*Sylviidæ*) receives a new name; constant references are made to the joint work of the author and Dr. Hartlaub, the *fourth* volume of 'Von der Decken's Reisen,' published in 1870.

"FRITSCH, E. Drei Jahre in Südafrika."

This work we have not seen, and only quote its title from Dr. Hartlaub's 'Bericht' (p. 113).

GRANDIDIER, A. Description de quelques animaux nouveaux decouverts, pendant l'année 1869, sur la côte ouest de Madagascar. Rev. et Mag. de Zool. 1869, pp. 337-342.

One bird only described (see *Cuculidæ*).

GURNEY, J. H. Notes on the Birds-of-prey of Madagascar and some of the adjacent Islands. [See *Accipitres*.]

GURNEY, J. H. [See AYRES, THOMAS.]

HEUGLIN, M. T. VON. The *Malurinae* of North-eastern Africa.
[See *Sylviidae*.]

——. Synopsis der Vögel Nord-Ost Afrikas, des Nilquellengebietes und der Küstenländer des Rothen Meeres. Journ. für Orn. 1869, pp. 1–18, 145–168.

A continuation of the paper before noticed (Zool. Rec. iv. pp. 59, 60, v. p. 46). The most remarkable facts will be found under the heads "*Sylviidae*" and "*Sturnidae*."

——. Ornithologie Nordost-Afrika's, der Nilquellen- und Küsten-Gebiete des Rothen Meeres und des nördlichen Somal-Landes. Erster Band, Erste Abtheilung. Cassel: 1869. Imp. 8vo, pp. 416, pls. 15 and map*.

This long-expected work is very welcome, and great pains have evidently been taken with it. The numerous species, which were named by the author in 1856, and some of them since described in communications to the 'Journal für Ornithologie' or elsewhere, come out better, we think, than could have been expected [*cf.* Zool. Rec. i. p. 49] from the scrutiny to which they have been lately subjected by him while preparing the present work. It must be remarked that he has been able to consult and quote from the work on the birds of Eastern Africa, by Drs. Hartlaub and Finsch, though this has only been published within the present year, which is manifestly a great advantage, as it has led in many cases to a common view being taken by each of these authorities. It is not easy to say exactly how many species are now for the first time described; but it is believed that a special account of all the chief novelties will be found under the heads *Caprimulgidae*, *Cypselidae*, *Nectariniidae*, *Hirundinidae*, and, where they are most numerous, *Sylviidae*. The whole of the plates promised for the present part of the work are not yet given, while several that do not belong to it are. [*Cf.* Ibis, 1870, pp. 127, 421–435.]

JESSE, WILLIAM. Report on the Zoology of the Abyssinian Expedition. Proc. Zool. Soc. 1869, pp. 111–117.

A mere sketch of the authors' route; full particulars of his doings are expected to be published in the Society's 'Transactions.'

LAYARD E. L. Further Notes on South-African Ornithology. Ibis, 1869, pp. 68–79, 362–378.

The first paper refers to about 50 species, and is in continuation of those noticed last year (Zool. Rec. v. p. 46), containing

* In connexion with this work, see also the same author's "Zoogeographische Skizze," u. s. w. in Petermann's 'Geographische Mittheilungen,' 1869, pp. 406–418, Taf. 21.

much information on the nidification and oology of the birds of the Cape Colony, as well as some explanations of the limits to which the author restricted himself in his larger work (Zool. Rec. iv. pp. 60, 61). The second paper is of the same character, referring to about 80 species, two of which, belonging to *Motacillidæ* and *Fringillidæ*, are new to the Cape fauna.

MALMGREN, A. J. Letter on some South-African Birds. *Ibis*, 1869, pp. 229, 230.

Mentions 5 species found in South Africa by Wahlberg, which are not included in Mr. Layard's work on the birds of that country.

MILNE-EDWARDS, ALPHONSE. Nouvelles observations sur la faune ancienne des îles Mascareignes. *Comptes Rendus*, April 12, 1869, lxxviii. pp. 856-860; Abstract, *Rev. et Mag. de Zool.* 1869, pp. 173-178. Translated, *Ann. & Mag. N. H.* 4th ser. iv. pp. 129-132. [See *Rallidæ*.]

SHARPE, R. B. On a Collection of Birds from the Fantee Country in Western Africa. *Ibis*, 1869, pp. 186-195, pl. iv.

After mentioning the scanty records which exist relating to the ornithology of this district, 60 species are enumerated, of which 21 seem not to have been before found there; and one new one, belonging to *Campephagidæ*, is described. The plate represents *Huhua poensis*.

——. On two more Collections of Birds from the Fantee Country. *Tom. cit.* pp. 381-388, pl. xi.

In addition to those included in the last paper, 36 species are here enumerated, of which 12 are marked as not hitherto recorded from the country; and 2 new ones, belonging to *Ploceidæ*, are described and figured.

——. On the Birds of Angola.—Part I. With Notes by the Collector, J. J. MONTEIRO. *Proc. Zool. Soc.* 1869, pp. 563-571, pl. xliii.

Contains notes on 3 species from St. Thomas's Island, and 29 from Angola, whereof 8 are recorded from the latter for the first time. None are new; the species figured belongs to *Hirundinidæ*.

——. [See *Alcedinidæ*.]

TRISTRAM, H. B. Notes on some new South-African *Sylviidæ*. *Ibis*, 1869, pp. 204-208, pl. vi.

Besides remarks on other species, contains descriptions of 4 new ones.

——. Notes on some African birds. *Tom. cit.* pp. 434-438. 1869. [VOL. VI.]

One species, belonging to *Alaudidæ*, is described as new; and valuable remarks on several others are made.

INDIAN REGION.

BEAVAN, R. C. Additional Notes on various Indian Birds. Ibis, 1869, pp. 403-426.

These are supplementary to the first paper of the series noticed (Zool. Rec. ii. p. 72, iv. p. 62, v. p. 48), and are of the same character. Upwards of 60 species are noticed.

BLANFORD, W. T. Ornithological Notes, chiefly on some birds of Central, Western, and Southern India. Proc. Asiat. Soc. Bengal, 1869, pp. 104, 105 (abstract); Journ. Asiat. Soc. Bengal, xxxviii. (1869) pp. 164-191, pl. xvii. a.

These notes relate to three collections, the first made in Nag-poor, Chanda, and on the Upper Godavery, the second at and near Khandalla on the Western Ghauts, and the third in the Neilgherry Hills. Of the first the chief points were mentioned in a paper previously noticed by us (Zool. Rec. iv. p. 62); but all respecting the other two seems to be new. The observations relating to the relative distribution of some of the migrating birds are especially worthy of notice. One new species (mentioned under *Timaliidæ*) is described. [Cf. Ibis, 1870.]

BROOKS, W. E. Notes on Birds observed near Nynee Tal and Almorah, from April to June 1868. Ibis 1869, pp. 43-60. Corrections, *tom. cit.* pp. 353, 354.

Upwards of 90 species are noticed.

BULGER, G. E. List of Birds obtained in Sikkim, Eastern Himalayas, between March and July 1867. Ibis, 1869, pp. 154-170.

Nearly 140 species enumerated, with notes on their habits or the elevations at which they occur.

GOULD, J. The Birds of Asia. Part xxi. London: 1869.

A bare majority of the species figured probably belongs to the Indian Region; of the remainder, one is from a doubtful locality, another pertains to the Australian, and the rest to the Palæarctic Region. [Cf. Ibis, 1870, pp. 118, 119.]

HUME, ALLAN. Stray Notes on Ornithology in India. Ibis, 1869, pp. 1-20, 143-146.

The first of these papers contains an entertaining account of a morning's birds'-nesting at Bareilly, with notes on many Indian species; and the second treats of the nidification of *Nisaetus bonellii*.

——. Letters respecting some Indian Birds. *Tom. cit.* pp. 120-122, 353-357.

The first contains critical remarks on *Anthus ricardi* and *A. sordidus*, *Corvus intermedius*, and *Falco peregrinator*. The second, besides treating of some other matters, describes 6 species, belonging to *Vulturidæ*, *Falconidæ* (3), *Sylviidæ* and *Ploceidæ*, as new.

——. My Scrap Book. [See "ACCIPITRES."]

SWINHOE, ROBERT. Descriptions of two new Species of Sun-birds from the Island of Hainan, South China. [See *Nectariniidæ*.]

——. Letter identifying some of the Chinese Birds mentioned by Mr. Collingwood. *Ibis*, 1869, pp. 347, 348.

We noticed Mr. Collingwood's work last year (*Zool. Rec.* v. p. 33). Mr. Swinhoe's remarks upon the Chinese Birds mentioned in it are much to the point.

WALDEN, ARTHUR [HAY], Viscount. Remarks on Dr. Stoliczka's "Ornithological Observations in the Sutlej Valley." *Ibis*, 1869, pp. 208–215.

The paper criticised was noticed by us last year (*Zool. Rec.* v. p. 49), and the critic speaks highly of it, adding some good remarks on the nomenclature of certain species, the synonymy of which seems to be in much confusion.

WALLACE, ALFRED RUSSEL. The Malay Archipelago: the Land of the Orang-Utan and the Bird of Paradise. A Narrative of Travel, with Studies of Man and Nature. London: 1869. 2 vols. small 8vo, pp. 478 and 524.

The interest with which this work was long expected will not have been disappointed at its appearance; but the great popularity it has achieved renders it unnecessary for us to give more than an outline of its contents. Mr. Wallace has very much consulted the convenience of his readers by departing from the usual plan of travellers in their narratives, and instead of a chronological he has adopted a geographical system, giving a connected account of each island or group of islands forming the Archipelago, one after the other. Thus after a chapter devoted to the physical geography of the whole chain, the Indo-Malay Islands are treated; then come in order the Timor Group, Celebes and its satellites, the Moluccas and the Papuan Group. In each case a chapter is especially occupied by a general treatise on the natural history of the division, while that on the *Epimachidæ* and *Paradiseidæ* (ii. pp. 387–426) here demands particular mention. The illustrations, except two excellent maps, consist of numerous woodcuts, well chosen for their subjects. The theory of Natural Selection, of which the author was the joint-discoverer with Mr. Darwin, receives of course great attention throughout; but it is at the same time set forth with so much judgment that its keenest opponents will have but little reason to complain. From the nature of the case, much of these two

volumes really belongs to the "Australian Region." [Cf. *Ibis*, 1869, pp. 216, 217.]

AUSTRALIAN REGION.

AMATI, AMATO. Della Nuova Guinea, ii. Real. Istit. Lomb. Rendic. Adunanza 17 June, 1869, pp. 784-800.

The ornithology of the island is briefly mentioned (p. 798).

BENNETT, GEORGE. Letter on Birds of Lord Howe's Island. Proc. Zool. Soc. 1869, pp. 471, 472.

Among those mentioned one (belonging to *Rallidæ*) is new, and is described by Mr. Sclater.

BULLER, WALTER. On some New Species of New-Zealand Birds. *Ibis*, 1869, pp. 37-43.

The new species described, 8 in number, will be noticed at length under *Aridæ*, *Trichoglossidæ*, *Turdidæ*, *Maluridæ*, *Certhiidæ*, *Scolopacidæ*, *Anatidæ*, and *Laridæ*. [See FINSCH, O.]

— Notes on Herr Finsch's Review of Mr. Walter Buller's Essay on New-Zealand Ornithology. Trans. & Proc. New Zeal. Inst. i. pp. 105-112.

The author's "Essay" and Dr. Finsch's remarks* upon it have been previously noticed (Zool. Rec. iii. p. 57, iv. pp. 64, 65). To the last this paper is a categorical reply. One new species belonging to *Rallidæ* is described, and the validity of several others which had been questioned by Dr. Finsch is confirmed, while some of his objections are admitted, and the names of 10 species added to the New-Zealand fauna since that gentleman's publication are given. An 11th, belonging to *Ardeidæ*, is mentioned, but not named. [Cf. *Ibis*, 1870, pp. 135, 136.]

FINSCH, O. On a very rare Parrot [*Domicella cardinalis*] from the Solomon Islands. Proc. Zool. Soc. 1869, pp. 126-129, pl. xi.

— Remarks on some species of Birds from New Zealand. *Ibis*, 1869, pp. 378-381.

Criticises and disallows several of the species lately described by Mr. Buller in his "Essay" (Zool. Rec. iii. p. 57) and in the paper above mentioned.

FINSCH, O., & HARTLAUB, G. On a small Collection of Birds from the Tonga Islands. Proc. Zool. Soc. 1869, pp. 544-548.

In the 'Beitrag zur Fauna Central-Polynesiens' (Zool. Rec. iv. p. 65) the authors had enumerated 41 species of birds as found in the Tonga Islands. One of these (belonging to *Rallidæ*) is now considered not to be good; and of the remainder,

* These are also translated by Mr. R. L. Holmes and added by way of appendix to Mr. Buller's reply (Trans. and Proc. New Zeal. Inst. i. pp. 112-125), while the latter's original essay is also reprinted (*tom. cit.* part iii. p. 20).

5 seem to be peculiar to that group; 3 more, of which one (belonging to *Laniidæ*) is described as new, are contained in the present collection, which comprises 11 species, on all of which notes are added.

GOULD, J. Description of a new species of *Dacelo* from North-Western Australia. Proc. Zool. Soc. 1869, p. 602. [See *Alcedinidæ*.]

— . Descriptions of five new species of Birds from Queensland, Australia. Ann. & Mag. Nat. Hist. 4th ser. iv. pp. 108–111. [See *Meliphagidæ*, *Ampelidæ* (2), *Sittidæ*, and *Rallidæ*.]

— . The Birds of Australia. Supplement—Part v. London: 1869.

The last part of this work we noticed two years since (Zool. Rec. iv. pp. 65, 66). The species figured are 14 in number, and will be found mentioned in our special part. Some of them have only been described during the last year*.

HUTTON, F. W. Letter with Notes on two Birds in the Auckland Museum and some others. Ibis, 1869, pp. 351–353. [See *Megapodiidæ*, *Procellariidæ*, and *Casuariidæ*.]

— . Notes on the Birds of the Great Barrier Island. Trans. & Proc. New Zeal. Inst. i. pp. 160, 161.

— . Notes on the Birds of the Little Barrier Island. *Tom. cit.* p. 162.

On the first of these spots the author passed two months, finding 52 species, and on the second four days, meeting with 23 species. None are described as new, but one could not be procured for identification.

SCLATER, P. L. On a Collection of Birds from the Solomon Islands. Proc. Zool. Soc. 1869, pp. 118–126, pls. ix., x.

After reciting what has hitherto been recorded of the ornithology of this group, the 21 species, of which 3 (belonging to *Coraciidæ*, *Sturnidæ*, and *Rallidæ*) are new, contained in the collection are enumerated, and a list of 34 species known to be found in these islands is given, at least 17 being peculiar. The author subsequently proposes to divide the "Australian Region" into five subregions, viz.:— (1) the Papuan, the Austro-Malayan of Mr. Wallace (*cf.* Zool. Rec. i. pp. 53–55); (2) the true Australian, comprising continental Australia, the promontory of Cape York perhaps excepted; (3) the New-Zealandian; (4) the Polynesian; and (5) the Sandwich Islands. The Solomon Islands form an eastern outlier of the Papuan subregion.

* We may take this opportunity of saying that since we last noticed Mr. Diggle's work (Zool. Rec. v. p. 51) we have seen nothing more of it.

MUELLER, F. VON. List of Birds permanently occurring [in] or periodically visiting the Botanic Gardens, Melbourne. Proc. Zool. Soc. 1869, pp. 279-280.

A nominal list of 114 species.

RAMSAY, E. P. Some further remarks on the Cuckoos found in the neighbourhood of Sydney, and their Foster-parents. [See "Oology."]

WALLACE, A. R. The Malay Archipelago &c. [See "INDIAN REGION."]

NEARCTIC REGION.

ALLEN, J. J. Notes on some of the Rarer Birds of Massachusetts. American Naturalist, iii. pp. 505-519.

A supplement to the author's catalogue, published five years previously (Proc. Essex Inst. iv.). Seven species are now added to the fauna of the State, making the whole number 300.

BAIRD, S. F. On additions to the Bird-fauna of North America, made by the Scientific Corps of the Russo-American Telegraph Expedition. Trans. Chicago Acad. Sc. i. (1869) pp. 311-325. [See DALL, W. H., and BANNISTER, H. M.]

A most important paper, showing the occurrence in Alaska of several Old-World forms, and containing descriptions of 5 new species, which will be found under *Sylviide*, *Troglodytidae*, *Fringillidae* (2), and *Laridae*, together with that of a "variety" belonging to *Fringillidae*, which, we think, is beyond all question a good species—besides 3 others, to be further mentioned under *Motacillidae*, *Scolopacidae*, and *Pelecanidae*, now first indubitably recorded as American.

BANNISTER, H. M. [See DALL, W. H.]

BREWER, T. M. Sea-side Ornithology. American Naturalist, iii. pp. 225-235.

Popularly written remarks on the birds of the New-England coast, and more to the point than are most of the kind.

BUTCHER, H. B. List of Birds collected at Laredo, Texas, in 1866 and 1867. Proc. Ac. Sc. Philad. 1868, pp. 148-150.

A nominal list of about 90 species, with very brief notes.

COOPER, J. G. Some recent additions to the Fauna of California. Proc. Calif. Acad. Sc. iv. (1868) pp. 3-13.

Ornithology occupies the most of this paper (pp. 7-13); and it contains notes on upwards of 50 species out of 353 now known to occur within the limits of the State, an increase of 33 since the author's former estimate in 1862 (*op. cit.* iii. p. 23). None are new; but additional examples of many only recently so described are mentioned as having been obtained by the author, and the

paper generally deserves the best attention of students of the Nearctic avifauna.

COOPER, J. G. The Fauna of Montana Territory. *American Naturalist*, ii. pp. 596-600, iii. pp. 31-35, 73-84. Corrections, p. 224.

In continuation of the paper noticed last year (*Zool. Rec.* v. p. 7). The ornithological portion is comprised in the articles cited above. Only about 110 species are included.

——. The Naturalist in California. *Tom. cit.* pp. 182-189, 470-481.

Contains notices of birds seen on the Plains of Los Angeles, the Cajon Pass, the Desert, and the Colorado Valley.

——. Notes on the Fauna of the Upper Missouri. *Tom. cit.* pp. 294-299.

Includes a good many ornithological notes.

DALL, W. H., and BANNISTER, H. M. List of the Birds of Alaska. With Biographical Notes. With Descriptions of New Species by Prof. S. F. BAIRD. *Trans. Chicago Acad. Sc.* i. (1869) pp. 267-325, pls. 27-34.

This most instructive paper begins by recounting briefly the circumstances under which the results were obtained, due credit being accorded to the late Mr. Robert Kennicott, who superintended the operations carried on by the expedition for exploring the line to be adopted by the Western Union Telegraph Company, in the course of which that indefatigable naturalist succumbed to the hardships of the undertaking, and died at Nulato, on the Yukon River. The list includes 212 species, some of which are altogether new to science, while others (a not less interesting fact) are new to the American fauna; and field-notes upon nearly all are appended. The great importance of this paper lies chiefly in the fact that it proves the occurrence, not merely as accidental visitors to, but as regular inhabitants of Alaska, of many forms hitherto believed to be exclusively confined to the Old World. It seems to be very well drawn up. [See BAIRD, S. F.]

ELLIOT, D. G. The new and heretofore unfigured species of the Birds of North America. Parts XIII.-XV. New York: 1869. Imp. fol.

The conclusion of this great work, begun in 1866, and now completed in two volumes, with an introduction of some length (pp. 19), wherein the validity of several of the species figured is questioned, and in the case of some denied. The species figured (of some of them the heads only, upon wood) will be mentioned in our special part, as well as the chief identifications. [Cf. *Ibis*, 1870, pp. 277, 278.]

JONES, J. MATTHEW. On some of the Rarer Birds of Nova Scotia. Proc. & Tr. Nov. Scot. Inst. Nat. Sc. ii. pp. 70-73.

The species noticed are all aquatic; and the rarest visitor is perhaps *Tringa subarquata*, which occurred in September 1868.

REEKS, HENRY. Notes on the Zoology of Newfoundland. Zoologist, Sec. Ser. pp. 1609-1614, 1689-1695, 1741-1759, 1849-1858.

A good paper on the ornithology of the island, respecting which little has before been written. The author lived there two years, and includes 212 species in his list, nearly all of which he has himself identified.

RIDGWAY, ROBERT. Notices of certain obscurely known species of American Birds. Proc. Acad. Nat. Sc. Philad. 1869, pp. 125-135.

These are based on specimens in the Smithsonian Museum, and are made in especial connexion with the determination of collections formed by the author as zoologist to the Survey of the Fortieth Parallel, chiefly in California, Nevada, and Utah. After some preliminary remarks as to the line to be drawn between "species" and "varieties," in which the author states that he regards as conclusive the evidence with respect to the hybridization of eastern and western representative forms, he proceeds to consider (1) the Thrushes of the genus *Hylocichla*, then (2) the uniformly red species of *Pyranga* (wherein "a new species or variety" is described), and (3) the smaller *Quiscalis* of the United States.

Such particulars as are needful will be found under *Turdide*, *Tanagridæ*, and *Icteride*. [Cf. Ibis, 1870, pp. 281, 282.]

SUMICHRAST, F. The Geographical Distribution of the native birds of the Department of Vera Cruz, with a list of the migratory species. Mem. Boston Soc. Nat. Hist. i. pp. 542-563.

This is the paper of which the abstract was noticed last year (Zool. Rec. v. p. 54). The author divides the country into three vertical zones—the Hot Zone reaching to about 600 metres, the Temperate between that and 1500, and then the Alpine. The resident species of *Passeres* (to which order his remarks are limited) seem to be 175 in number; and notes on all of them are given. Many more, however, are mentioned. The paper is an important and interesting one, as it treats of the district where the Nearctic and Neotropical Regions inosculate. For instance, the south-east of Orizaba is visited by many forms from the hot zone never found on the opposite side of the city, where representatives of the cold zone are first met. A list of species for each of these zones is given, and some very good general remarks added. This paper should perhaps be regarded as relating to the "NEOTROPICAL REGION." [Cf. Ibis, 1870, pp. 278-280.]

TURNBULL, WILLIAM P. *The Birds of East Pennsylvania and New Jersey.* Glasgow: 1869. Roy. 8vo, pp. 62, figs.

A sort of companion volume to one by the same author previously noticed by us (Zool. Rec. iv. p. 57), and containing the observations of several years. Upwards of 340 species are included in the district, which is bounded on the west by the Alleghany Mountains, and on the east by the sea, extending from Cape May to Sandy Hook. The species are divided into (1) summer and (2) winter visitants, (3) spring and autumn passengers, (4) permanent residents, (5) stragglers, and (6) those which have disappeared—a somewhat awkward arrangement. A few of the illustrations are from sketches by Alexander Wilson. The work is edited by Mr. Robert Gray.

NEOTROPICAL REGION.

CABANIS, J. Uebersicht der im Berliner Museum befindlichen Vögel von Costa-Rica. *Journ. für Orn.* pp. 204–213.

This is the conclusion of a paper begun in the same journal nearly ten years ago (*J. f. O.* 1860, pp. 321–336, 401–416; 1861, pp. 1–11, 81–96, 241–256; 1862, pp. 161–176, 321–336). The portion we have to notice contains remarks on about 10 Costa-Rican species, of which 3, belonging to *Falconidæ*, *Cracidæ*, and *Tinamidæ*, are described as new; 8 species of *Glaucidium* (*Strigidæ*) are also differentiated.

CUNNINGHAM, R. O. Letter on Birds seen in the Straits of Magellan. *Ibis*, 1869, pp. 232–234.

Contains a few interesting details.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Brasiliens. *Journ. für Orn.* 1869, pp. 241–255.

A continuation of the papers before noticed (*Zool. Rec.* iv. p. 68, v. p. 55), this portion treating of the Brazilian *Strigidæ* and *Caprimulgidæ*.

FRANTZIUS, A. VON. Ueber die geographische Verbreitung der Vögel Costaricas und deren Lebensweise. *Journ. für Orn.* 1869, pp. 195–204, 289–318, 361–379*.

The first of these articles contains a detailed account of the natural features of the country, which the author divides into four "regions:"—(1) that of the Sea-shore; (2) the Tropical, extending from the lowlands to the height of 2000 feet; (3) the Subtropical, rising to 6000 feet; and (4) the cooler Mountain-region lying above the last. In the other two articles he gives a list of the species known to him as occurring in Costa Rica, 518 in number (none of which appear to be new), with occasional notes respecting them. The whole paper is written with

* The last portion not published till 1870.

special reference to that of Mr. Lawrence (Zool. Rec. v. p. 55). [See also CABANIS, J., and cf. O. Salvin, Ibis, 1870, pp. 107-116.]

GOERING, ANTONIO. Excursion a algunas cuevas hasta ahora no exploradas (al sureste de Caripe). Vargasia, no. 5 (1869), pp. 124-128.

Contains an account of *Steatornis caripensis*, by which the caves are frequented in large numbers. [Cf. Ibis, 1870.]

HABEL, —. Exhibition of a collection of Birds from the Galapagos. Proc. Zool. Soc. 1869, p. 433.

The collection contains about 70 species, some of which are believed to be new; but no other particulars are given. [Cf. Comptes Rendus, lxix. pp. 273-277; P. Z. S. May 1870.]

LAWRENCE, G. N. A Catalogue of the Birds of Costa Rica. Ann. Lyc. Nat. Hist. New York, 1868, pp. 141-149*.

A continuation, beginning with "No. 475," of the paper noticed last year (Zool. Rec. v. p. 55). The number of species in the Catalogue is brought up to 504; and 7 more, of which one (belonging to *Tyrannidae*) is new, are added in an Appendix, which also contains some further notes on 10 species already included. [See SALVIN, O.]

——. List of a Collection of Birds from Northern Yucatan. *Op. cit.* ix. (1869) pp. 198-210.

The collection was formed chiefly at or near Merida by Governor Salazar and Dr. Arthur Schott in 1865 and 1866, and contained 103 species, of which 2, belonging to *Tyrannidae* and *Columbidae*, are described as new. Some valuable remarks upon others are introduced. [Cf. Ibis, 1870, p. 280.]

——. Catalogue of Birds from Puna Island, Gulf of Guayaquil, in the Museum of the Smithsonian Institution, collected by J. F. Reeve, Esq. *Tom. cit.* pp. 234-238.

Of the 21 species composing the collection, 4, belonging to *Tyrannidae* (2), *Turdidae*, and *Troglodytidae*, are described as new. [Cf. Ibis, 1870, p. 281.]

——. Characters of some New South-American Birds, with Notes on other rare or little known Species. *Tom. cit.* pp. 265-275.

The species described as new are 8 in number, belonging to *Falconidae*, *Trochilidae*, *Tyrannidae* (5), and *Turdidae*, particulars of the others (3) noticed will be found under *Galbulidae*, *Tyrannidae*, and *Icteridae*. [Cf. Ibis, 1870, p. 281.]

——. Description of Seven New Species of American Birds from various localities, with a note on *Zonotrichia melanotis*. Proc. Acad. N. S. Philad. 1868*, pp. 359-362.

* Not published till 1869.

[See *Falconidæ*, *Formicariidæ*, *Cotingidæ*, *Tyrannidæ*, *Mniotiltidæ*, *Tanagridæ*, and *Icteridæ*. Cf. *Ibis*, 1870, p. 280.]

PELZELN, AUGUST VON. Zur Ornithologie Brasiliens. Resultate von Johann Natterers Reisen in den Jahren 1817 bis 1835. II. Abtheilung. Wien: 1869. 8vo, pp. 69–188, xxxiii–xliii.

Some mistakes were made in our notice of the contents of the first part of this work last year. Instead of about 100 species being therein included as there (*Zool. Rec.* v. p. 55) stated, the number was 374; and Mr. Sclater's prior description of some species of *Caprimulgidæ* then said (*tom. cit.* p. 74) to have been ignored was duly mentioned (p. 49, note) as since pointed out by the author and acknowledged by ourselves (*Ibis*, 1870, p. 296). In the second part 371 species are included, whereof 71 (!) are described as new, one, however, not having been discovered by Natterer and one not being Brazilian. They will be noticed under *Formicariidæ* (35), *Dendrocolaptidæ* (1), *Cotingidæ* (7), *Vireonidæ* (2), *Tyrannidæ* (25), and *Mniotiltidæ*—though these are not in every case the groups to which the author refers them. The new or little-known species are (as before) described in detail after the catalogue of the collection; and then follows a continuation of the list showing their geographical distribution throughout Brazil. Impressed as we are with the value of this work and with the extraordinary amount of labour which the author has bestowed on his task of erecting a durable monument of Natterer's zeal, we confess that the distinction between the previously described and undescribed species is hardly made plain enough, and there was certainly no need to print the manuscript names applied to the former by this great traveller. The work is indispensable to all students of South-American Ornithology.

SALVIN, OSBERT. Notes on Mr. Lawrence's List of Costa-Rica Birds. *Ibis*, 1869, pp. 310–319.

This article is on that part of Mr. Lawrence's paper which we noticed last year (*Zool. Rec.* v. p. 55), and carefully scrutinizes both the evidence on which he has admitted to or omitted from his list certain species and the validity of others, besides making several suggestions as to their nomenclature. From that list Mr. Salvin rejects 14 species, while he adds 13 others, thus leaving it with 473 "Land-birds," as nearly as possible, with regard to numbers, where he found it. [See also LAWRENCE, G. N.]

—. [See SCLATER, P. L., and SALVIN, OSBERT.]

SCLATER, P. L. On the Birds of the Vicinity of Lima. With notes on their Habits by Professor W. NATION. Part III. *Proc. Zool. Soc.* 1869, pp. 146–148, pl. xii.

A continuation of the papers before noticed (Zool. Rec. iii. p. 64, iv. p. 70). Seven species are noticed, of which one (belonging to *Fringillidæ*) is figured.

SCLATER, P. L. Description of a new species of Mexican Wren. Proc. Zool. Soc. 1869, pp. 591, 592, pl. xlv. [*Troglodytidæ*.]

SCLATER, P. L., and SALVIN, O. On Venezuelan Birds collected by Mr. A. Goering. *Tom. cit.* pp. 250-254, pl. xviii.

A continuation of the papers noticed last year (Zool. Rec. v. p. 57). The present collection was formed chiefly near the Lake of Valencia, and contains 56 species, of which one (belonging to *Galbulidæ*) is new, and about 7 others deserve comment.

—, —. On a Collection of Birds made by Mr. H. S. le Strange near the city of Mexico. *Tom. cit.* pp. 361-364.

Notes referring to 15 or 16 species, none of which are new; but the probable distinctness of two (belonging to *Corvidæ*) hitherto confounded is pointed out.

—, —. Descriptions of six new Species of American Birds of the Families *Tanagridæ*, *Dendrocolaptidæ*, *Formicariidæ*, *Tyrannidæ*, and *Scolopacidæ*. *Tom. cit.* pp. 416-420, pl. xxviii.

—, —. On two new Birds [*Tanagridæ* and *Cotingidæ*] collected by Mr. E. Bartlett in Eastern Peru. *Tom. cit.* pp. 437-439, pl. xxx.

—, —. Descriptions of three new Species of Tanagers from Veragua. *Tom. cit.* pp. 439, 440, pls. xxxi., xxxii. [*Tanagridæ*.]

—, —. On Peruvian Birds collected by Mr. Whitely. Part IV. Proc. Zool. Soc. 1869, pp. 151-158, pl. xiii. Part V. *Ibid.* pp. 596-601.

In continuation of the papers before noticed (Zool. Rec. iv. p. 71, v. p. 57). The first of these parts treats of a collection formed at and near Tinta on the Vilcamayo; but the localities probably come into two of Tschudi's regions—the Eastern-Sierra and the Puna. It contains 46 species, of which 4, belonging to *Tyrannidæ* (2), *Tanagridæ*, and *Fringillidæ*, are described as new.

The second deals with two small collections, one made, like the former, at Tinta, the other in the valley of Cosnipata. This last, containing 42 species, is very poor, the great families *Trochilidæ*, *Dendrocolaptidæ*, and *Formicariidæ* being entirely unrepresented. The other comprises about 57 species, 13 of which are new to the district and 3 (belonging to *Trochilidæ*, *Tyrannidæ*, and *Anatidæ*,—the first, however, having been described by Mr. Gould) to science.

SCLATER, P. L., and SALVIN, O. Second List of Birds collected at Conchitas, Argentine Republic, by Mr. William H. Hudson; together with some Notes upon another Collection from the same locality. *Tom. cit.* pp. 158–162. Third List, &c., collected by Mr. Hudson. *Ibid.* pp. 631–636.

The first list we noticed last year (*Zool. Rec.* v. p. 56, 57). The Second collection contains 50 species, of which 14 are not in the first. The other part of the paper consists of notes on a collection made by Mr. Haslchurst near Buenos Ayres, which contained 10 additional species. All these are enumerated, but none are new.

The Third collection includes 92 species, of which 33 were not contained in the first two. None of them are new.

—, —. Second List of Birds collected in the Straits of Magellan by Dr. Cunningham. *Ibis*, 1869, pp. 283–286.

This collection was formed during the summer of 1867–68 (*Zool. Rec.* v. p. 54), and contained 31 species: the land-birds are all well known Chilean forms, and thus confirm the opinions already uttered by the authors (*tom. cit.* p. 56) as to the Patagonian avifauna. Remarks are added on 3 species of *Fringillidæ*.

STERNBERG, CHRYSANTHUS. Notizen aus der Vogelwelt von Buenos-Ayres. *Journ. für Orn.* 1869, pp. 174–193, 257–278.

After a general description of the neighbourhood of Buenos Ayres, notes on 35 species follow. These chiefly relate to their mode of breeding, and appear to be most carefully made.

ANATOMY AND PHYSIOLOGY.

BONSDORFF, —. Anatomiskt bevis för den af Professor Mäklin gifna tydningen af furcula hos foglarna. *Cefvers. Finska Vet.-Soc. Förhandl.* xi. pp. 66–70.

With the views of Prof. Mäklin on this subject we are not acquainted; the present paper is an anatomical proof of their correctness.

CARBONNIER, P. Observations faits sur l'incubation des œufs de Gallinacés. *Comptes Rendus*, lxviii. pp. 613–615.

These have reference to the best mode of ensuring success in artificial incubation, and show how it may depend upon the texture and colour of the egg-shell and the ordinary temperature of the atmosphere.

CRAMER, FRIEDRICH. Beitrag zur Kenntniss der Bedeutung und Entwicklung des Vogeles. *Verhandl. Würzburger Phys. med. Gesellsch. N. F.* (1868) i. pp. 181, tab. i.

Purely physiological. [*Cf. Journ. Anat. & Physiol.* May, 1869, p. 458.]

COUES, ELLIOTT. Bird's-eye Views. *American Naturalist*, ii. pp. 571–583.

The conclusion of the paper noticed last year (*Zool. Rec.* v. p. 58).

CUNNINGHAM, R. O. On *Chionis alba*. Journ. Anat. and Physiol. Nov. 1869, pp. 87-89, pl. vii.

A brief description, illustrated by figures, of the principal digestive organs.

ERTON, T. C. Supplement to Osteologia Avium; or a Sketch of the Osteology of Birds. Wellington, Salop: 1869. 4to, pls. 18.

Of the plates given, 13 are reprints of the osteological figures contained in the author's 'Monograph of the *Anatida*,' and refer to that family. The 5 others are new, and represent the skeleton of members of that group also. The work to which the whole forms a supplement we noticed two years since (Zool. Rec. iv. pp. 71, 72). [Cf. Ibis, 1870, p. 266.]

JOBERT, —. Recherches anatomiques sur les glandes nasales des Oiseaux. Ann. Sc. Nat. 5e sér. xi. pp. 349-369, pls. 8, 9. Abstract in Comptes Rendus, lxi. p. 1016.

The secreting-apparatus which covers most of the frontal region and opens upon the nasal fossæ is more complicated than is usually imagined, and consists, in the birds examined (certain species of *Grallæ* and *Anseres*) of two pairs of glands having each its own excretory canal. These proceed at first side by side; but their course in the nasal fossæ becomes very different, and their orifices are far apart from each other. The structure of the glands and their anatomical relations are described by the author.

MAGNUS, H. Physiologisch-anatomische Studien über die Brust- und Bauchmuskeln der Vögel. Arch. für Anat., Physiol. und wissensch. Med. 1869, pp. 207-235, Taf. vii.

This essay, which obtained the prize of the Medical Faculty at Breslau, describes at considerable length the muscles of the breast, including those of flight and respiration and of the belly. The illustrations are taken from *Aquila leucocephala*, *Falco apivorus*, and *F. pygargus*, *Otus vulgaris*, *Cuculus canorus*, *Agelæus phœniceus*, *Columba livia* (*domestica*), and *Sterna hirundo*. No generalizations with regard to taxonomy, however, seem to be given.

MILNE-EDWARDS, A. Recherches Anatomiques, etc. [See "GENERAL SUBJECT."]

MURIE, JAMES. Note on the Sublingual Aperture and Sphincters of the Gular Pouch in *Otis tarda*. Proc. Zool. Soc. 1869, pp. 140-142.

The most complete description of these singular structures (cf. Zool. Rec. v. p. 60) that has yet appeared. The pouch seems to be an infolding of the membrane below the upper larynx, and in a bird six years old attains only a comparatively moderate size: the aperture is rather sublaryngeal than sublingual; and the sphincter is a development of the superior constrictor of the pharynx and stylo-pharyngeus, and not a specialized structure.

SEIDLITZ, GEORG. Die Bildungsgesetze der Vögeleier in histologischer und genetischer Beziehung und das Transmutationsgesetz der Organismen. Leipzig: 1869. 8vo, pp. 58.

This work scarcely comes within the domain of zoological literature, as that is commonly accepted; nevertheless we do not hesitate to quote its title—if only for the sake of the carefully prepared list of works bearing on the subject with which it begins. [Cf. Zool. Garten, 1869, pp. 319, 320; Ibis, 1760, pp. 130, 131.]

SELENKA, EMIL. [See "GENERAL SUBJECT."]

TOBIAS, LOUIS. Ueber das Ausstossen der inneren Magenhaut bei den Vögeln. Zoolog. Garten, 1869, pp. 189, 190.

This peculiarity observed in *Sturnus vulgaris*, *Strix noctua*, and other birds. [Cf. *op. cit.* 1865, p. 396; *vide etiam infra*, "Bucerotidæ."]

VOIT, —. Observations sur l'ablation des hémisphères cérébraux des pigeons. Institut, no. 1828, 12 Jan. 1869; Ann. Sc. Nat. 5e sér. xi. pp. 90–92.

A translation of the paper noticed last year (Zool. Rec. v. p. 61).

WATSON, MORRISON. On the Mechanism of Perching in Birds. Journ. Anat. and Physiol. May 1869, pp. 379–384.

By experiment the author discovered that the faculty of perching is not due to the action of the *rectus femoris* muscle, as has generally been supposed, and that it is indeed wanting in many birds (*Turdus*, *Pica*, and *Sturnus*) which habitually perch, while it is present in several which do not do so. The true explanation of the faculty is believed to be due to the peculiar arrangement of certain other muscles, the *biceps*, *flexor perforatus digitorum*, *flexor longus pollicis*, and especially *tibialis anticus*, which is described at some length.

PTEROLOGY.

FOREL, F. A. "Faux albinisme de trois jeunes Cygnes de Morges en 1868. Bull. Soc. Vaudoise Sc. Nat. x. no. 61, 1869." Rev. et Mag. de Zool. 1869, pp. 334, 335.

Of this paper we have only seen the abstract quoted; the particulars are given under *Anatidæ* and *Podicipidæ*.

LAYARD, E. L. Letter on variation of plumage in Birds. Ibis, 1869, pp. 458–460.

Contains particulars of a good many instances of melanism, albinescence, and other variations, which the author attributes generally to old age.

NEOSSOLOGY.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See "PALÆARCTIC REGION."]

The young of *Enneoctonus collurio*, *Accipiter nisus*, *Gennæus nyctemerus*, *Thaumalea picta*, *Phasianus colchicus*, *Saxicola cinanthe*, *Alauda arborea*, *Alauda arvensis*, *Budytes flava* [sc. *boarula*], *Anthus spinoletta*, *Cypselus melba*, *Gecinus viridis*, *Chelidon urbica*, *Pratincola rubicola* [cf. Ibis, 1870, p. 167], *Hortulanus chlorocephalus*, *Butalis grisola*, *Acanthis linaria*, *Coccothraustes vulgaris*, *Accentor alpinus*, *Fulica atra*, and *Syrnium aluco* are figured.

GOULD, J. The Birds of Great Britain [See "PALÆARCTIC REGION."]

Part xv. contains figures of the nestlings of *Alauda arvensis*, *Ligurinus chloris*, *Turdus viscivorus*, *Edicnemus crepitans*, and *Numenius arquata*, and Part xvi. those of *Strix flammea*, *Tadorna vulpanser*, and *Thalassidroma pelagica*.

MARCHAND, ALB. Poussins des oiseaux d'Europe couverts de duvet à la sortie de l'œuf. Rev. et Mag. de Zool. 1869.

The species figured during the past year are:—

<i>Puffinus anglorum</i> *	pl. 1	<i>Buteo lagopus</i>	pl. 8
<i>Sterna minuta</i>	" 2	<i>Falco tinnunculus</i>	" 9
<i>Strix aluco</i>	" 3	— <i>cenchris</i>	" 10
<i>Larus tridactylus</i>	" 4	<i>Puffinus cinereus</i>	" 14
<i>Mergus serrator</i>	" 5	<i>Phaeton æthereus</i>	" 15
<i>Totanus ochropus</i>	" 6	<i>Strix bubo</i>	" 16
<i>Astur nisus</i>	" 7	— <i>tengmalmi</i>	" 17

No letterpress accompanies this series of plates (*cf.* Zool. Rec. v. p. 62).

OOLOGY.

BETTONI, EUGENIO. Storia Naturale degli Uccelli che nidificano in Lombardia, &c. [See "PALÆARCTIC REGION."]

Plate IV. contains figures of the eggs of *Anser segetum* (2), *Pavo cristatus*, *Meleagris gallopavo* (2), *Cairina moschata*, *Numida meleagris* (4), *Gennæus nycthemerus* (2), *Lyrurus tetrix* (2), *Thaumalea picta* (4), *Palumbæna columbella*, *Fulica atra* (2), and *Lagopus mutus* (2).

COUES, ELLIOT. Sea-side Homes. American Naturalist, iii. pp. 337-349.

Notes chiefly on the nidification of *Charadriidæ* and *Laridæ*.

EULER, CARL. Beiträge zur Naturgeschichte der Vögel Brasiliens. [See "NEOTROPICAL REGION."]

HUME, ALLAN. Stray Notes on Ornithology in India. [See "INDIAN REGION."]

——. My Scrap Book. [See "ACCIPITRES."]

JONES, C. M. The Breeding Habits of Birds. American Naturalist, iii. pp. 48, 49.

Individual variability chiefly dwelt on.

KÖNIG-WARTHAUSEN, BARON RICHARD. Bemerkungen über die Fortpflanzung einiger Caprimulgen. Journ. für. Orn. 1868, pp. 361-388†, tab. ii. fig. 3.

Very good notes on 28 species, especially on their eggs and, where they are known, their young, as well as on the

* *P. cinereus* on plate; but see errata, p. 448.

† Not published till 1869, see Zool. Rec. v. pp. 29, 30, note.

mode of breeding. According to the colour of the eggs the birds may be arranged in *four* groups—those laying (1) glossy eggs with a white ground, blotched with brownish- or bluish-grey, (2) very glossy eggs with a greenish-white ground, spotted and streaked with greenish-brown and grey, (3) dull and delicate eggs with a pale reddish cream-coloured or lively flesh-coloured ground marked with yellowish-red and violet-grey, and (4) unspotted eggs more or less white. The first of these is the prevailing type, especially in the northern hemisphere and the temperate districts of the Old World; the second is the northern type of the New World; the third the southern type, especially in the New World; and the fourth the Polynesian type, which is special for the *Podarginae* and *Steatornithinae*. The accounts of the different species are given in much detail and with great apparent accuracy.

KÖNIG-WARTHAUSEN, BARON RICHARD. Revue der *Sterna*-Eier. Bericht XVII. Versamml. Deutschl. Ornithol. Gesellsch. pp. 36-39.

The oological characters, so far as known to the author, of all the species of *Sterninae*, are briefly given.

LAYARD, E. L. Further Notes on South-African Ornithology. [See "ETHIOPIAN REGION."]

NATHUSIUS, W. VON. Ueber die Hüllen, welche den Dotter des Vogeleies umgeben. Zeitschr. für wissensch. Zoologie, xviii. pp. 225-270, pls. xiii.-xvii. Nachträge. *Op. cit.* xix. pp. 322-348, pls. xxvi.-xxviii.

——. Ueber die Structur der Moa-Eischalen aus Neu-Seeland und die Bedeutung der Eischalenstructur für die Systematik. *Op. cit.* xx. pp. 106-130, pl. xii.

Of this elaborate and praiseworthy series of papers, of which we feel our inability to offer an abstract within any reasonable limits, the last has probably the most zoological interest. The author finds that the egg-shell of *Dinornis* has the same *habitus* as that of other *Struthiones*, among which it stands nearest to *Rhea*, though the resemblance was not so great in the thicker of the two fragments of the former examined by him as in the thinner. *Apteryx*, on the other hand, in this respect does not agree so much with the *Struthiones*; but the fact that the specimen of its egg examined was laid by a captive, renders, perhaps, deductions from it less satisfactory. The illustrations give many figures of highly-magnified portions of the egg-shell in several birds.

RAMSAY, E. P. Some further Remarks on the Cuckoos found in the Neighbourhood of Sydney, and their Foster-parents. Proc. Zool. Soc. 1869, pp. 359, 360, pl. xxvii.

A sequel to the paper before noticed (Zool. Rec. ii. p. 90), wherein *Lamprococcyz plagosus* and *L. basalis* were not distinguished. 1869. [VOL. VI.]

guished from *Chalcites (L.) lucidus* (under which name they were treated), and its eggs considered to be dimorphic. One egg of each of the two first mentioned, together with one of *Cuculus inornatus*, *C. cineraceus*, *Acanthiza lineata*, *A. pusilla*, *A. nana*, *Geobasileus reguloides*, *Smicrornis brevirostris*, *Stipiturus malacurus*, *Chthonicola minima* and *Ptilotis auricomus*, is figured.

SCHACHT, H. Die Baukünstler unserer Vögel. Zoolog. Garten, 1869, pp. 40-48, 80-84, 97-102.

Notes on the architecture of birds. The author's conclusions are that their capability of nidification is inborn and not learnt. The yearling in its first work betrays the same skill as its parent. The choice of a locality for the nest seems in course of time to be a matter of reflection; though nests of one and the same species are found which, as regards substantiality and accuracy of execution, differ remarkably from each other, it would be theoretical to ascribe the less skill shown in the building to the want of experience in younger birds. The author, after many observations and comparisons, believes that the nests of the first broods in the year are always the finest and strongest.

STERNBERG, CHRYSANTHUS. Zur Fortpflanzungsgeschichte des Viehstaares, *Molobrus sericeus* (Licht.). Journ. für Orn. 1869, pp. 125-136.

The notes were made near Buenos Ayres, and are of great interest. Eight species of birds, *Troglodytes platensis*, *Tyrannus violentus*, *Leistes anticus*, *Cotyle leucorrhoea*, *Zonotrichia matutina*, *Sycalis luteiventris*, *Anthus rufus*, and, curiously enough, *Molobrus badius* are duped into becoming foster-parents of this parasitic bird. The editor of the 'Journal' contributes some additional remarks.

——. Notizen aus der Vogelwelt von Buenos-Ayres. [See "NEOTROPICAL REGION."]

Accipiter brevipes (Zool. Rec. i. p. 67, ii. p. 93), notes on its breeding. T. Krüper, J. f. O. 1869, pp. 26-28.

Meniceros bicornis, its mode of nidification and habits during incubation described. C. Horne, P. Z. S. 1869, pp. 241-243.

Tyrannus carolinensis and *Troglodytes aedon*, extraordinary number of eggs laid by. C. H. Nauman, Am. Nat. iii. p. 390.

Sialia sialis, variations in its eggs. E. Ingersoll, Am. Nat. ii. pp. 391, 392.

Ploceus baya, notes on its mode of nidification. C. Horne, P. Z. S. 1869, pp. 243-245, pl. xvii.

Pedionomus torquatus, its egg (*ex ovario*) described. W. V. Legge, P. Z. S. 1869, p. 237.

Lobivanellus goensis, its breeding-habits described. C. Horne, Ibis, 1869, pp. 454-456.

ACCIPITRES.

ALLÉON, AMÉDÉE, & VIAN, JULES. Des Migrations des oiseaux de proie sur le Bosphore de Constantinople. Rev. et Mag. de Zool. 1869, pp. 258-273, 305-315, 342-348, 369-374, 401-409.

A series of observations of very great interest, one at least of the authors having devoted himself for many years to the task of watching the migrant *Accipitres* on their passages up and down the Bosphorus, and having enjoyed great facilities for performing it. Upwards of twenty species are noticed, one of which is announced as new to Europe; and the series is being continued in the journal for the present year. [Cf. Ibis, 1870, pp. 60-76.]

BARBOZA DU BOCAGE, J. V. Museu Nacional de Lisboa. Secção Zoologica. Catalogo das Collecções Ornithologicas. *Accipitres*. Lisboa: 1869. 8vo, pp. 30-62.

The specimens, belonging to 223 species of the Order, contained in the National Museum at Lisbon are catalogued, and a few notes are occasionally interspersed. None of the species appear to be new. [Cf. Ibis, 1870, pp. 134, 135.]

FARMAN, C. On some of the Birds of Prey of Central Bulgaria. Ibis, 1869, pp. 199-204.

In continuation of the paper before noticed (Zool. Rec. v. p. 66), and, like it, relating to 13 species, the most remarkable of which are *Haliaetus leucorypha* (Pall.) (?) and *Archibuteo lagopus*, which last is more likely to have been *Aquila pennata*.

GURNEY, J. H. Notes on the Birds-of-prey of Madagascar and some of the adjacent Islands. Tom. cit. pp. 443-454, pl. xvi.

This is by way of a commentary on a portion of the 'Recherches sur la Faune de Madagascar' of MM. Schlegel and Pollen (Zool. Rec. iv. p. 61, v. p. 47), and must not be neglected by any student either of the subregion or of the group treated; for some of the criticisms, though minute, are important. The species enumerated are twenty-eight in number; the plate represents *Hypotriorchis eleonora*.

HUME, ALLAN. My Scrap Book: or Rough Notes on Indian Oology and Ornithology. Calcutta: 8vo, pp. 237.

The portion published relates only to certain diurnal *Accipitres*, and consists of all the information in respect to them which the author has gathered since the appearance of Dr. Jerdon's 'Birds of India,' whether printed or unprinted. It necessarily follows that the innumerable facts recorded are of very unequal value; but the book contains very much that is new. Its most important details are briefly mentioned below.

VULTURIDÆ.

Gyps fulvescens is described as a new species from India, resembling *G. fulvus*, but of a rich ruddy-bay colour, with conspicuous narrow pale median stripes to the feathers beneath, and a short stout bill like *G. bengalensis*. A. Hume, Ibis, 1869, p. 356; *Id.* Scrap Book, pp. 19-21.

Gyps himalayensis is the name provisionally given to *G. fulvus* from the Himalayas, should it prove, as is suspected, distinct. *Id. op. cit.* pp. 12, 15-17.

FALCONIDÆ.

Spizactus orientalis, Temm. & Schleg., is perhaps only *S. nipalensis*, J. H. Gurney, P. Z. S. 1869, p. 1.

Nisicetus bonelli, notes on its nidification in India. A. Hume, Ibis, 1869, pp. 143-146.

Circus zonurus is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. iii.

Buteo borealis, notes on. W. Wood, Am. Nat. iii. pp. 393-397.

Buteo ferox, notes on. T. Kriiper, J. f. O. 1869, p. 29. Its occurrence in Italy, 8 April, 1869. T. S. Salvadori, Atti Soc. Ital. Sc. Nat. 24 Aug. 1869.

Buteo fuliginosus is described as a new species from India, of a very deep smoky-brown, mingled beneath with dull red, the tail with conspicuous and well-defined greyish-white bars. A. Hume, Ibis, 1869, p. 356.

Milvus melanotis is said to have occurred at Constantinople. A. Alléon & J. Vian, R. Z. 1869, pp. 372-373. [Qu. *M. ægyptius*? H. J. Elwes & T. E. Buckley, Ibis, 1870, p. 73, note.]

Falco islandicus is figured. D. G. Elliot, B. N. Am. pt. xiii.

Falco atriceps is described as a new species from India, allied to *F. peregrinator*; but the head, nape, cheeks and ear-coverts all form one black patch, the rest of the upper surface is as in *F. peregrinus*, and beneath it is marked like *F. peregrinator*. A. Hume, Ibis, 1869, p. 356; *Id.* Scrap Book, pp. 58-62.

Falco columbarius, a defence of statements concerning its nidification made in a former paper (Zool. Rec. iv. p. 67). T. M. Brewer, Ibis, 1869, p. 243.

Hypotriorchis eleonora (from the coast of Madagascar) is figured. J. H. Gurney, *tom. cit.* pl. xvi.

Erythropus vespertinus, its distribution in Russia. H. Göbel, J. f. O. 1869, pp. 321, 322. Its occurrence in Finland. A. J. Malmgren, Öfvers. Finska Vet.-Soc. Förhandl. 1869, no. 1. Figured. J. Gould, B. Gr. B. pt. xvi.

"*Falco raddei* [lege *raddei*], Hartl.," is mentioned as a synonym of *Erythropus amurensis* (Zool. Rec. iv. p. 67). M. T. v. Heuglin, Orn. Nordost-Afr. i. p. 40; G. Hartlaub, Bericht u. s. w. pp. 111, 112. [Since included under the first name by Drs. Finsch and Hartlaub in the fourth volume of Von der Decken's 'Reisen' (p. 74), published in 1870*.]

Falco semitorquatus, A. Smith, is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. i.

Hieracidea brunnea is the immature of *H. novæ-zelandiæ*. W. Buller, Trans. & Proc. New Zeal. Inst. i. p. 108.

Astur pulumbarius (ad. & juv.) is figured. J. Gould, B. Gr. Br. pt. xv.

* We cannot allow this proposed change of a specific name to pass without protesting against it as a needless and, therefore, noxious alteration, which we are surprised to find proposed by ornithologists so eminent.

Accipiter brevipes (Zool. Rec. i. p. 67, ii. p. 93) breeding in Turkey. W. Schlüter, Zool. Garten, 1869, pp. 374-376. In Asia Minor: T. Krüper, J. f. O. 1869, pp. 25-28.

Accipiter gabar, as well as *A. badius* (Zool. Rec. iv. p. 82), is said to occur on the Bosphorus. A. Alléon & J. Vian, R. Z. 1869, p. 403. [*Qu. A. brevipes*? sed cf. Ibis, 1870, p. 75.]

Accipiter melanochistus is described as a new species from India, distinguished from *A. nisus* by the very dark head and nape, the olive slate-colour of the rest of the upper surface, the peculiarly close markings on the lower parts, and its somewhat larger size. A. Hume, Ibis, 1869, p. 356; *Id.* Scrap Book, pp. 128-132.

Accipiter nigroplumbeus is described as a new species from Ecuador, in size resembling *A. ventralis* (Zool. Rec. iii. p. 73, iv. p. 82), but very different in colouring beneath, the sides and thighs being of a clear rufous, the breast paler and duller with whitish cross-markings, and under tail-coverts nearly white. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 270, 271.

Accipiter bicolor (♂ and ♀) and *A. guttatus* are figured, a list of the seven species forming the group *Cooperastur* being added. P. L. Sclater & O. Salvin, Ex. Orn. pp. 137, 138, 169, 170, pls. lxi., lxxv.

SCLATER, P. L., & SALVIN, O. Notes on the Species of the Genus *Asturina*. Proc. Zool. Soc. 1869, pp. 129-134.

A monograph worked out with the authors' accustomed skill. Seven species are established and diagnostically grouped: (1) *A. nitida* and *A. plagiata*, (2) *A. magnirostris*, *A. nattereri*, *A. ruficauda* and *A. gularis*, and (3) *A. leucorrhœa*, which stands alone. The synonymy and geographical range of all these is fully given; and one species,

A. ruficauda, from Mexico and Central America, is differentiated from *A. magnirostris*, with which it had hitherto been confounded.

Asturina polionota is a new species from Costa Rica and Mexico having the grey of the upper parts darker and more whole-coloured than in *A. nitida*; and on the head, neck, and back the pale cross-bands are entirely wanting. J. Cabanis, J. f. O. 1869, p. 208.

Asturina nattereri (ut suprâ), *A. ruficauda* (ut suprâ), *A. pucherani*, and *A. plagiata*, the adult and young of each, are figured and a diagnostic list of the seven species of the genus given. P. L. Sclater & O. Salvin, Ex. Orn. pp. 173-180, pls. lxxvii.-xc.

SCLATER, P. L., & SALVIN, O. Notes on the Species of the Genus *Micrastur*. Proc. Zool. Soc. 1869, pp. 364-369.

A monograph similar to that on *Asturina* (ut suprâ); and, as in that, seven species are established and a sufficient diagnosis of each given. They are grouped first according to size, *M. semitorquatus* and *M. mirandollii* being separated from the rest, which are further separated into those with a rufous back (*M. ruficollis* and *M. zonothorax*) and those with the same part ash-coloured (*M. gilvicolis*, *M. leucauchen* and *M. guerilla*).

Harpagus fasciatus is described as a new species from Guatemala, differing entirely from *H. bidendatus* and *H. diodon* in the broad transverse markings beneath. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), pp. 361, 362.

Melherax poliopterus is a new species from the river Uмба in East Africa,

smaller than *M. musicus*, and with the tail-coverts above and below entirely white, the wing-coverts and secondaries being entirely ash-colour without vermiculated cross bands. J. Cabanis, J. f. O. 1868 (published in 1869), p. 413; *Id.* Von der Decken's Reisen, iii. 1, pp. 40, 41.

Melierax polyzonus, its occurrence near Mogador. C. F. Tyrwhitt Drake, Ibis, 1869, p. 153.

Melierax niloticus (Sundevall, Cefvers. K. Vet.-Ak. Förhandl. 1850, p. 132) may be accepted as distinct from the southern and larger *M. gabar*. J. H. Gurney, *tom. cit.* pp. 288, 289.

STRIGIDÆ.

Notes on the Brazilian species of this family. C. Euler, J. f. O. 1869, pp. 242-249.

Athene cucularia, its habits in California. O. S. Canfield, Am. Nat. ii. pp. 583-585; G. M. Sternberg, *op. cit.* iii. p. 157.

Noctua (Athene) spilogastra, Heugl. (J. f. O. 1863, p. 15), is figured. M. T. v. Heugl. Orn. Nordost-Afr. tab. iv.

Surnia funerea, its occurrence in Scotland. R. Gray, Proc. N. H. Soc. Glasgow, i. p. 236.

Glaucidium, eight species of this genus are differentiated. J. Cabanis, J. f. O. 1869, pp. 205-208.

Huhua poensis (Fraser), young and very old, is figured, for comparison with the plumage of middle age (P. Z. S. 1863, pl. xxxiii). R. B. Sharpe, Ibis, 1869, p. 194, pl. iv.

Strix flammea is said to hoot, while *S. aluco* "screeches and rarely if ever hoots." W. G. Sterland, B. Sherwood Forest, pp. 43, 44. [*Cf.* Ibis, 1870, p. 123.] Figured (*cum pull.*). J. Gould, B. Gr. Br. pt. xvi.

Strix walleri (Zool. Rec. iii. p. 74) is referred to *S. candida*, Tickell, and is figured. *Id.* B. Austral. Suppl. pt. v.

Scops asio and *S. naevia*, further remarks [*cf.* Zool. Rec. v. p. 60] tending to prove their specific identity. W. Brewster, Am. Nat. iii. p. 334, 335.

Scops kennicotti (Zool. Rec. iv. p. 83) is figured. S. F. Baird, Trans. Chicago Ac. Sc. i. pl. xxvi., and, as well as *S. flammeola*, D. G. Elliot, B. N. Am. pt. xiii.

Otus capensis, its occurrence at Gibraltar (*cf.* Naumannia, 1852, i. p. 10). H. Irby, P. Z. S. 1869, p. 276.

Bubo dilloni, Des Murs & Prévost, as an examination of the type shows, is identical with *B. capensis*, A. Smith. J. H. Gurney, Ibis, 1869, p. 402.

PSITTACI.

BARBOZA DU BOCAGE, J. V. Museu Nacional de Lisboa. Secção Zoologica. Catalogo das Collecções Ornithologicas. *Psittaci*. Lisboa: 1869. 8vo, pp. 7-28.

A list of the specimens belonging to the Order contained in the Lisbon Museum, showing that 204 species are there represented. [See "ACCIPITRES."]

ARIDÆ.

Conurus hoffmanni is figured. P. L. Sclater & O. Salvin, Ex. Orn. pp. 161, 162, pl. lxxxi.

Platycercus alpinus is described as a new species from the Southern Alps of New Zealand, allied to *P. auriceps*, but smaller and having the frontal band orange, the vertex pale yellow, the thigh-spots orpiment-orange, and an absence of the yellow element in the general plumage. Its bill, too, is fully a third less in size. W. Buller, *Ibis*, 1869, pp. 39, 40. Not distinguishable from *P. auriceps*. O. Finsch, *tom. cit.* pp. 378, 379.

PSITTACIDÆ.

Psittacus citreocapillus is figured. M. T. v. Heuglin, *Orn. Nordost-Afr.* t. xxvi.

TRICHOGLOSSIDÆ.

Domicella cardinalis (Jacq. & Puch.), hitherto only known by the type, which was subsequently lost, is fully described and figured. O. Finsch, *P. Z. S.* 1869, pp. 126-129, pl. xi.

Nestor occidentalis is described as a new species from the western part of the South Island of New Zealand, smaller and with a more slender bill than *N. hypoleucus*, besides differing in colour. W. Buller, *Ibis*, 1869, pp. 40, 41. Its validity doubted. O. Finsch, *tom. cit.* p. 379.

PICARIDÆ.

PICIDÆ.

Picus lucasanus, Xantus, and *P. scalaris*, the head and foot of each figured. Probably identical. D. G. Elliot, *B. N. Am. Intr.* p. 7.

Colaptes auratus and *Picus pubescens*, notes on. A. Fowler, *Am. Nat.* iii. pp. 422-427.

Campethera capricorni, Strickl. (*Contr. Orn.* 1852, p. 155), is noticed and figured. A. Newton, *Ibis*, 1869, pl. ix.

TROGONIDÆ.

GOULD, JOHN. *Monograph of Trogonidæ*. Second edition, part ii. London: 1869. Imp. fol.

This contains figures of the following:—*Pharomacrus pavoninus*, *Prionotelus temnurus*, *Trogon elegans*, *T. surucua*, *T. aurantius*, *T. viridis*, *Troctes massense*, *Harpactes hodgsoni*, *H. ardens*, *H. kasumba*, *H. reinwardti*, *H. mackloti* and *H. orescius*. Some of the plates are reproduced from the author's 'Birds of Asia' (*Zool. Rec.* ii. p. 96). [*Cf. Ibis*, 1870, p. 118.]

BUCCONIDÆ.

Bucco striolatus is figured. P. L. Sclater & O. Salvin, *Ex. Orn.* p. 153, pl. lxxvii.

CORACIIDÆ.

Eurystomus crassirostris is a new species from the Solomon Islands, with a thick bill and longer tail than *E. pacificus*. P. L. Sclater, *P. Z. S.* 1869, p. 121.

Coracias indica, *C. affinis*, and *C. temmincki* are figured. J. Gould, *B. As.* pt. xxi.

MEROPIDÆ.

Merops cyanophrys is figured. M. T. v. Heugl. *Orn. Nordost-Afr.* t. vi.

GALBULIDÆ.

Brachygalba goeringi is described and figured as a new species from Venez-

uella, resembling *B. inornata*, but without a white throat. P. L. Sclater & O. Salvin, P. Z. S. 1869, pp. 252, 253, pl. xviii.

Brachygalba lugubris (Swains.), note on. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 274, 275.

ALCEDINIDÆ.

SHARPE, R. B. A Monograph of the *Alcedinidæ* or Kingfishers. London: 1869. Parts iii.-vi. Roy. 8vo.

Of the merits of this work we spoke last year (Zool. Rec. v. p. 72), the four parts now to be noticed successfully sustain its reputation. Part iii. (1 Jan.) contains figures and accounts of *Dacelo gaudichaudi*, *D. tyro* (Zool. Rec. iii. p. 79), *Tanysiptera nympha*, *Halcyon badia*, *Syma torotoro*, *S. flavirostris*, *Ceyx tridactyla* and *C. philippensis* (Zool. Rec. v. p. 72). Part iv. in like manner illustrates *Melidora macrorrhina*, *Halcyon senegaloides*, *Ispidina madagascariensis*, *I. leucogastra*, *I. picta*, *Ceyx uropygialis*, *Alcyone cyanopectus* and *Ceryle inda*. Part v. comprises *Ceryle amazonia*, *Alcedo beryllina*, *A. semitorquata*, *Corythornis vintsioides* [sc. *cristata*, ut *infra*], *Ceycopsis fallax* (Zool. Rec. ii. p. 98, et *infra*), *Ispidina ruficeps*, *Halcyon orientalis* (Zool. Rec. v. p. 73) and *H. cyanoleuca*. Part vi. includes *Ceryle guttata*, *C. lugubris*, *C. maxima*, *C. sharpii* (ut *infra*), *Alcyone pusilla*, *Corythornis cristata*, *C. œruleocephala*, *Ispidina natalensis*, and *Tanysiptera sylvia*. [Cf. Ibis, 1870, pp. 121, 122; Am. Nat. iii. pp. 149, 150].

——. On the Kingfishers of South Africa. Ibis, 1869, pp. 275-283.

The scope of this paper is to correct some mistakes in Mr. Layard's work (Zool. Rec. iv. pp. 60, 61), and it chiefly relates to matters of synonymy and distribution. The species mentioned are 24 in number, of which 23 are peculiar to the Ethiopian Region.

——. Additional Notes on the Genus *Ceyx*. Proc. Zool. Soc. 1869, pp. 507-511.

Contains critical remarks on Dr. Salvadori's paper (*vide infra*). *C. innominata*, Salvad. = *C. rufidorsa*, Strickl.; *C. sharpii*, Salvad. (ut *infra*), *C. dillwyni* (Zool. Rec. v. pp. 72, 73) and *C. melanura*, Kaup, are good species; and *C. tridactyla* (Pall.) = *C. rufidorsa*, Salvad. (nec Strickl.). In accordance with these views, diagnoses differing from those given last year (Zool. Rec. loc. cit.) are given.

SALVADORI, T. Monografia del Genere *Ceyx*, Lacépède. Atti R. Accad. Sc. Torino, iv. (21 March, 1869) pp. 440-476, pl.

The author divides the genus into two sections, *Ceyx* proper and *Therapsa*, with *C. solitaria* as its type and only member, but does not take quite the same view of them as did Mr. Sharpe (Zool. Rec. v. p. 72). *C. uropygialis* is regarded as identical with *C. lepida*, *C. philippensis* is referred to the genus *Alcyone*, while

Ceycopsis is proposed as a new genus (p. 447, note) to contain *Dacelo fallax*, Schleg. (Zool. Rec. ii. p. 98), because of its four toes;

Ceyx innominata (pp. 448, 465) is the name given to *C. rufidorsa*, auctt., Dr. Salvadori retaining the latter for what may be the young of *C. tridactyla* (*vide supra*);

Ceyx sharpii is described and figured (pp. 463-465, pl.) as a new species

from Borneo, differing from *C. dillwyni*, its scapulars being rufous tinged with lilac, and from *C. innominata* (*ut supra*), its upper wing-coverts being mostly black and the lesser outwardly edged with blue. It is *C. tridactyla*, Reichenb. (Handb. *Alcedin.* p. 8, fig. 3388), nec Pall. [*Cf.* P. Z. S. 1869, p. 511; Ibis, 1870, pp. 183, 184.]

Alcedo alcyon, its nidification. C. E. Williams, Am. Nat. ii. pp. 614, 615; C. M. Jones, *op. cit.* iii. p. 48; R. Ridgway, *tom. cit.* pp. 53, 54. A winter resident in Minnesota. H. Davis, *tom. cit.* p. 389.

Alcedo chelicuti receives the new specific name of *tschelicutensis*! M. T. v. Heuglin, Orn. Nordost-Afr. i. p. 192.

Dacelo occidentalis is a new species from North-western Australia, allied to *D. cervina*, but differing in its much stouter bill, paler colours, and especially by the outer web of the outer rectrices being plainly barred with white. J. Gould, P. Z. S. 1869, p. 602.

Ceryle sharpii is a new species from the Gaboon, allied to *C. maxima*, but somewhat smaller, and having the crest almost, and the back entirely, unspotted; the abdomen and lower tail-coverts are slaty-black profusely banded with white, and the under wing-coverts with black bars. *Id.* Ann. & Mag. N. H. 4th ser. iv. p. 271.

SHARPE, R. B. On a new Kingfisher belonging to the genus *Tanysiptera*. Proc. Zool. Soc. 1869, pp. 630, 631.

This also contains a diagnostic table of the species of the genus, of which eleven are recognized. The new one is

T. ellioti, from an unknown locality, having no white dorsal spot, but a white rump and a non-spatulate tail. The type belongs to the Counts Turati.

CAPITONIDÆ.

Pogoniorhynchus rolleti, *P. leucocephalus*, and *P. diadematus*, their heads figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xxvii.

Barbatula uropygialis is figured. *Id.* t. xxviii.

Buccanodon anchietæ is described and figured as a new species from Cameroonia (W. Africa). J. V. Barboza du Bocage, P. Z. S. 1869, pp. 436, 437, pl. xxix.

BUCEROTIDÆ.

BARTLETT, A. D. Remarks on the Habits of the Hornbills (*Buceros*). Proc. Zool. Soc. 1869, pp. 142-146.

An example of *B. corrugatus* being observed to throw up a singular casting, this on examination proved to consist of a mass of the bird's food enveloped in a casing which the author regards as the natural secretion of the animal, and is the means by which the male feeds the female while she is plastered up in her nest. Some remarks on the castings and secretions of other birds are added.

FLOWER, W. H. Note on a Substance ejected from the Stomach of a Hornbill (*Buceros corrugatus*). *Tom. cit.* p. 150.

The sack containing the casting above mentioned consists of the entire epithelial lining of the bird's gizzard. [*Vide supra*, "ANATOMY, &c., Tobias, L."]

Buceros, the curious habits during incubation of birds of this genus first

noticed in *B. pica* (Ann. & Mag. Nat. Hist. 2nd ser. xi. p. 234). E. L. Layard, *tom. cit.* pp. 529, 530.

Meniceros bicornis, its remarkable mode of nidification and habits during incubation described. C. Horne, *tom. cit.* pp. 241-243.

Rhynchaceros (Tockus) deckeni is described and figured as a new species from East Africa, differing from the small allied species by being darker and blacker above, and having the wing-coverts not so much spotted. The sides of the head, the neck, middle line of the back, and lower surface are white. J. Cabanis, J. f. O. 1868 [published in 1869], p. 413; *Id.* Von der Decken's Reisen, iii. 1, p. 37, pl. vi.

MUSOPHAGIDÆ.

Corythaix leucolophus is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xxiv.

CUCULIDÆ.

WALDEN, ARTHUR [HAY], Viscount. On the *Cuculidæ* described by Linnæus and Gmelin, with a sketch of the Genus *Eudynamis*. Ibis, 1869, pp. 324-346, pl. x.

A paper showing a vast amount of research and accurate knowledge, and undertaken partly with the view of testing the practical working of the British Association code of rules for zoological nomenclature; for the author thinks that the foundation of a correct system cannot be laid until the whole of the species described by Linnæus and Gmelin have been identified or disposed of. Of the 22 Linnæan species of *Cuculus*, 3 belong to other families, and 11 of the remaining 19 have been more or less satisfactorily identified, leaving 8 undetermined. Of these, 2 seem to be beyond hope at present; but the names of the last 6 can, it is shown, be referred without much fear of error to the species for which they were intended. The 2 Linnæan species of *Crotophaga* are identical. Gmelin named 24 species and 10 varieties of *Cuculus* in addition to those given by Linnæus, besides 2 species which belong to other families, 2 which really are Cuckoos though placed in other genera, and 1 *Crotophaga*. Of these 29 only 9 can, from one cause or another, retain Gmelin's names. To all this patient investigation follows what is modestly called a "sketch" of the genus *Eudynamis*; but it is a sketch of very elaborate character, for the synonyms of each of the 9 species recognized by the author, and in most cases sufficient diagnoses, are given, and *Eudynamis ransomi*, Bp. (Consp. Av. i. p. 101) is figured.

Cuculus canorus, its castings. G. Brucklacher, Zool. Garten, 1869, pp. 124, 125.

Lamprococcyx plagiator, *L. basalis*, *Cuculus inornatus* and *C. cineraceus*, their eggs figured. E. P. Ramsay, P. Z. S. 1869, pp. 359, 360, pl. xxvii. figs. 1-4.

Centropus senegalensis in confinement. P. L. Sclater, *tom. cit.* p. 276.

Cona hartlaubi is described as a new species from Madagascar resembling *C. coquereli* (Zool. Rec. iv. p. 89), of which it may be only a local race, but rather smaller, and with a shorter tail and stouter bill. It belongs to the group *Serisomus*. A. Grandidier, R. Z. 1869, p. 339.

STEATORNITHIDÆ.

Steatornis caripensis, its mode of breeding. R. König-Warthausen, J. f. O. 1868 (not published till 1869), pp. 384-386. Notes on some caves it frequents. A. Goëring, Vargasia, 1869, pp. 124-128. In confinement. P. L. Slater, P. Z. S. 1869, p. 467.

CAPRIMULGIDÆ.

Notes on the mode of breeding of 28 species of the family, in which the author includes *Steatornis*. R. König-Warthausen. [See "OöLOGY."] On the Brazilian species. C. Euler, J. f. O. 1869, pp. 249-255.

Caprimulgus europæus, notes on, in confinement. V. von Tschusi, J. f. O. 1869, pp. 220-224.

Caprimulgus inornatus from the Bygos country is a species hitherto undescribed and almost deserving generic separation. It is distinguished by its peculiar pale greyish-red colouring and the almost entire absence of any white or rusty marks on the neck, throat, and ears. M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 129-130 *.

CYPSELIDÆ.

Cypselus caffer orientalis from East Africa is described as a variety of the South-African *C. caffer*, being smaller and with much less white on the throat. M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 143, 144.

Cypselus melba is figured. J. Gould, B. Gr. Br. pt. xvi.

TROCHILIDÆ.

Doricha lyrura is a new species from the Bahamas, about the size of *D. eveline*, but with a distinctly-forked tail, the outer feathers of which are much longer, narrower, and curved outward at the tip, the remainder graduating towards the middle ones, which are very short. J. Gould, Ann. & Mag. N. H. 4th ser. iv. pp. 111, 112.

Lesbia ortonii is described as a new species from Ecuador, of the same form and dimensions as *L. glyceria*, Bp., but with the outer rectrices intermediate in width between those of that species and of *L. amaryllis*. It should be placed perhaps with the former in a new genus. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 269, 270.

Oreonympha is a new genus, allied both to *Oxypogon* and *Rhamphomicrum*, of which the characters are:—Bill longer than the head, stout, and with a somewhat downward curvature; wings large and sickle-shaped; tail ample

* The author's description was published certainly not later than August 1869; but having had access, as has been mentioned above, to the proof-sheets of Drs. Finsch and Hartlaub's 'Vögel Ost-Afrikas,' which was not published till 1870, he is enabled to quote the page of that work in which this species is also described.

and forked; tarsi clothed nearly to the toes, which are of moderate size; the hinder toe and nail rather shorter than the middle toe and nail. The type is

O. nobilis, sp. nov., from Tinta in Peru. J. Gould, P. Z. S. 1860, pp. 295, 296; P. L. Sclater and O. Salvin, *tom. cit.* p. 600.

PASSERES.

PITTIDÆ.

Pitta digglesii is proposed as the name of the Cape-York bird hitherto referred to *P. mackloti* (Zool. Rec. iv. p. 91). G. Krefft, Ibis, 1869, pp. 349, 350. The last figured. J. Gould, B. Austral. suppl. pt. v. [Cf. Ibis, 1870, p. 411.]

Pitta krefftii is described as a new species. T. Salvadori, Atti Soc. Ital. Sc. Nat. 25 Aug. 1869. [Identical with *P. similima* (Zool. Rec. v. p. 76). *Id.* Ibis, 1870, p. 296.]

FORMICARIIDÆ.

Thamnophilus unduliger, *T. borbæ*, *T. tschudii*, *T. cinereoniger*, *T. sticturus*, *T. cinereiceps*, *T. cinereinucha*, *T. stictocephalus*, *T. punctuliger*, *T. polionotus*, "*T. saturninus*, Natter.," and *T. incertus* are described as new species from Brazil. The *first* is nearest to *T. leachi*, but differs in its larger size, much shorter tail, greatly developed hood (cinnamon in the ♀), and finely undulated plumage. The *next* differs from *T. major* by the remiges (in the ♂) not being edged with white and the rectrices, in adults, being nearly black, and in the young less banded, from *T. transandeanus* by its white under tail-coverts, and from *T. melanurus* by the shorter tail, all the wing-coverts being edged with white, and (in the ♀) the lores and ear-regions rufous instead of black. The *third* may possibly be *T. luctuosus*, Tschudi (*nec* Licht.); but the ♂ wants the white spot on the middle of the outer web of the outer rectrix and seems larger; the ♀ also differs somewhat. Of the *fourth* descriptions only are given and no diagnosis. The *fifth* resembles *T. ambiguus*, but is much smaller, the median spots of the rectrices cover the whole outer web, and there is no spot on the inner web, the middle rectrices have a white terminal spot and margin very narrow in the middle; the ♀ also differs by her nearly pure white breast. The *sixth* is like *T. amazonicus*; but the head is not crested, and the ♂ has the crown ash-coloured with the occipital feathers only black in the middle, the ♀ has the lower breast, abdomen, and under tail-coverts brownish white, the last with broad white cross bands. The *seventh* also resembles *T. amazonicus*, but is smaller and wants the black at the beginning of the nape and has the middle of the back a little spotted with black; the ♀ is like *T. ambiguus*, but smaller, with the outer rectrix only having a white median spot, and the whole lower surface, under tail-coverts excepted, slightly washed with ochreous. The *eighth* very much resembles the seventh, but has the feathers of the crown white at the base. The *ninth* is not described comparatively. The ♂ of the *tenth* very much resembles the ninth, but is a little darker, and the feathers of the back are not white at the base. The *eleventh* is only described generally; and the *last*, which is given with doubt, is known from the ♀ alone, which is very like the tenth, but with a narrower bill and a much brighter lower surface. A. von Pelzeln, Orn. Bras. pp. 75-78, 139-140.

Thamnophilus mæstus is a new species from Cayenne, resembling *T. luctuosus*, but differing in the shorter bill, less developed crest, and dull white spots on the wing-coverts; it differs also from *T. tschudii* (*vide supra*) in its shorter bill, the bend of the wing and wing-coverts being less white, the want of the white edge of the remiges, and from both species in the broad white terminal portion of the rectrices. *Id. op. cit.* p. 141, note.

Thamnophilus virgatus is described as a new species from New Granada, resembling *T. palliatus* in general coloration; but it is smaller and differs notably in the white markings, in the strongly defined stripes on the crown, and the paler and duller tint of the red. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 360.

Dysilhamnus affinis is an undescribed species from Brazil, differing from *D. mentalis* (Temm.) through the want of a yellow lower belly, and through the blackish-grey crown in the ♂, while the ♀ is also sufficiently distinct. From *D. olivaceus*, Tschudi, it also differs through the grey upper surface and the dark ear-spot of the ♂. It resembles *D. semicinctus*, but has a stouter bill and other distinguishing characters. A. von Pelzeln, Orn. Bras. pp. 80, 149, 150.

"*Herpsilochmus atricapillus*, *H. longirostris*, and *H. dorsimaculatus*, Natter.," are three undescribed species from Brazil: the first like *H. pileatus* (Licht.), but with longer wings and tail, and the ♀ being ochraceous beneath; in the second the ♂ resembles the first, but has a much stronger and higher bill, white lores, and the outer rectrices halfway white, it differs also from *H. pectoralis*, Scl., ♂, by wanting the black pectoral spot; the third differs from *H. pileatus* by the feathers of the back being longitudinally spotted with black and white, and the inner rectrices have also two or three white longitudinal spots. *Id. op. cit.* pp. 80, 150-152.

Myrmotherula assimilis, "*M. luctuosa* (Temm.)," and *M. longipennis* are three undescribed species from Brazil. The first is very like *M. hauxwelli*, Scl., but has a longer tail of twelve rectrices, and the secondaries and upper tail-coverts are not spotted with white, the ♀ is more ash-coloured above and paler below; the second differs from *M. axillaris* (Vieill.) by wanting the white sides and by the body being of a darker grey; the third resembles *M. menetriesi* (D'Orb.), but has much longer wings. *Id. op. cit.* pp. 81, 82, 152-154.

"*Formicivora melanogaster*, Natter.," *F. leucophthalma*, and "*F. ruficauda* and *F. bicolor*, Natter.," are four undescribed species from Brazil. The ♂ of the first, which may possibly be *Myiothera superciliaris*, Pr. Max. (*nec* Licht.), differs from *F. grisea* (Bodd.) by being darker above, the absence of the white beneath, and the last secondaries being edged with white, while the ♀ has the sides of the head brown and is white beneath; from *F. rufatra* it differs by being dark and not reddish above. The second and third are not comparatively differentiated. The fourth differs from *F. quixensis* (Corn.) by the lower surface of the ♀ being rufous, from *F. consobrina*, Scl., by its larger size, and from *F. boucardi*, Scl., by the paler lower surface of the ♀, and from all these by the nearly white lateral rectrices. *Id. op. cit.* pp. 83, 84, 154-157.

Formicivora strigilata (♂ & ♀) is figured. P. L. Sclater & O. Salvin, Ex. Orn. p. 159, pl. lxxx.

"*Terenura melanoleuca* (Natter.)" is an undescribed species from Brazil. A. von Pelzeln, Orn. Bras. pp. 84, 157.

"*Rhamphocœmus collaris*, Natter.," is an undescribed species from Brazil. *Id. op. cit.* pp. 84, 157, 158.

Cercomacra approximans and *C. ruficauda* are two new species from Brazil. The *first* is very like *C. tyrannina*, ScL., but with a shorter bill and longer wings, and the female has the front and sides of the head rust-colour. The *second* is very near to *C. melanura* (Ménétr.), but differs in the black breast and abdomen, the rust-coloured flanks, abdomen, and vent, the entirely rufous tail, and in other points. *Id. op. cit.* pp. 85, 158, 159.

Gymnocichla chiroleuca is a new species from Costa Rica and Honduras, resembling *G. nudiceps* (with which it has been confounded), but remarkable for having a stronger bill and the bend of the wing entirely white. P. L. ScLATER & O. SALVIN, P. Z. S. 1869, pp. 417, 418.

Percnostola minor and "*P. leucostigma*, Natter. & Lafresn.," appear to be two undescribed species from Brazil: the *first* very like *P. fumebris* (Licht.), but smaller, with shorter bill and wings, the head in the ♂ scarcely crested, and the abdomen in the ♀ much paler, the margins of the wing-coverts also being narrower; the *second* is said to be identical with *Turdus rufifrons*, Gmel., and the reason for changing its specific name is not made clear. A. von PELZELN, Orn. Bras. pp. 86, 159-161.

Heterocnemis albiventris is an undescribed species from Brazil, though it is possibly the ♂ of *Herpsilochmus argentatus*, Des Murs (Voy. Castelnau, Zool. p. 53, pl. 17. fig. 2). It differs from *H. nœvia* (Gmel.) by the nearly white lower surface and the outer rectrices not being tipped with white. *Id. op. cit.* pp. 87, 161, 162.

"*Myrmeciza squamosa*, Natter.," is an undescribed species from Brazil, like *M. loricata* (Licht.), but with pure white terminal spots on the wing-coverts, the throat black, as is the upper breast, with white edges to the feathers, and narrower greyish-white superciliary streaks. It is *Formicivora loricata*, Ménétr. (Mém. Ac. St. Pétersb. 6 ser. iii. p. 470, pl. 4. fig. 1) (*nec* Licht.). *Id. op. cit.* pp. 87, 162, 163.

Hypocnemis maculicauda and *H. margaritifera* are two undescribed species from Brazil. The *first* similar to *H. melanopogon*, ScL., but smaller, the mid-dorsal feathers white at the base, and the rectrices more broadly tipped with white; the *second* resembles *H. nœvia*, but has nearly round white spots on the black back, and the ground-colour beneath white. It is perhaps the ♂ of *Rhopotera punctulata*, Des Murs (Voy. Castelnau, p. 53, pl. 17. fig. 3). *Id. op. cit.* pp. 89, 164-166.

"*Pithys cristata* (Natter.)" and *P. griseiventris* are two undescribed species from Brazil, neither of which is comparatively diagnosed. *Id. op. cit.* pp. 89, 166, 167.

Grallaria princeps is a new species from Veragua resembling *G. guatemalensis*, with which it has been confounded (P. Z. S. 1867, p. 146), but with a stouter bill, the body darker above, and the belly of a deeper rust-color. A note on the distribution of the five species allied to *G. rex* is added. P. L. ScLATER & O. SALVIN, P. Z. S. 1869, pp. 418, 419.

MENURIDÆ.

Orthonyx spaldingi is a new species from Queensland, distinguishable from *O. spinicauda* by its greater size and jet-black plumage. E. P. RAMSAY, P. Z. S. 1868, p. 386. Figured. J. Gould, B. Austral. Suppl. pt. v.

DENDROCOLAPTIDÆ.

Sclerurus rufifigularis is an undescribed species from Brazil, differing from *S. caudacutus* by its inferior size and its entirely ochreous chin and front of the neck. A. von Pelzel, Orn. Bras. pp. 87, 161.

Synallaxis arequipæ is a new species from Western Peru, hitherto confounded (P. Z. S. 1867, p. 986) with *S. orbignii*, which is distinguishable by its rufous wings and more rufescent tinge of the upper surface. P. L. Sclater & O. Salvin, P. Z. S. 1869, p. 417.

SCLATER, P. L. On two new Species of *Synallaxis*. Proc. Zool. Soc. 1869, pp. 636, 637, pl. xlix.

Synallaxis curtata, from New Granada, is the first. It resembles *S. ruficapilla*, but is of the same olive-brown below as above, and has 12 rectrices (not 10); it is also not unlike *S. erythrops*, but has the crown only red.

Leptasthenura andicola, from the Andes of Ecuador, is the second. It resembles *S. flammulata* in general appearance, but has for its nearest allies *S. ægithaloides* and *S. fuliginiceps*, peculiar for their small, short and straight bill, slender tarsi, and sharp-pointed tail of 12 rectrices—the number in typical *Synallaxis* being 10. *S. flammulata* (with which *S. multistriata*, Scl. P. Z. S. 1857, p. 273, is identical), on the other hand, belongs to a group embracing *S. anthoides*, *S. humicola*, *S. orbignii* and their allies, for which group the name *Asthenes* of Reichenbach may possibly be employed.

Thripadectes flammulatus is figured. P. L. Sclater & O. Salvin, Ex. Orn. pp. 185, 186, pl. xciii.

OXYRHAMPHIDÆ.

Oxyrhamphus frater is figured, and the reasons given for making the genus the type of a family (Zool. Rec. v. p. 78). P. L. Sclater & O. Salvin, Ex. Orn. pp. 131, 132, pl. lxvi.

MELIPHAGIDÆ.

Ptilotis cockerelli is a new species, from Cape York, but perhaps not belonging to this genus, having characters allying it also to *Stigmatops* and *Meliphaga*. In colouring it resembles *P. polygramma*, G. R. Gray (P. Z. S. 1861, p. 429). J. Gould, Ann. & Mag. N. H. 4th ser. iv. pp. 109, 110. Figured, as is also *P. notata* (Zool. Rec. iv. p. 93). Id. B. Austral. Suppl. pt. v.

Anthornis auriocula (Zool. Rec. iii. p. 88) is certainly a good species, while *A. ruficeps* (op. cit. iv. p. 93) may not be so. W. Buller, Trans. & Proc. New Zeal. Inst. i. p. 108.

Mimus carunculatus (Zool. Rec. iii. p. 95), and consequently *Anthochera bulleri* (op. cit. iv. p. 93), is identical with *A. carunculata*. Id. tom. cit. pp. 111, 112.

Tropidorhynchus, Vig. & Horsf. (1826), must give place to *Philemon*, Vieill. (1816), of which the type is *Merops moluccensis*, Lath.; and with this *T. bouruensis*, Wall. (P. Z. S. 1863, p. 31), is identical. P. L. Sclater, P. Z. S. 1869, p. 120, note.

NECTARINIIDÆ.

Nectarinia, a specimen from north-east Africa in the Mergentheim collection (Zool. Rec. iv. p. 59), where it bears the name of *N. souimanga* (nec Gmel.) is described as belonging possibly to a new species, but it is not

named. It may be *Cinnyris collaris*, Vieill. M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 233, 234.

Æthopyga christine and *Arachnechthra rhizophora* are two new species from Hainan. The latter is allied to *A. flammazillaris*, but has the forehead black, with purple, blue, and green reflections. R. Swinhoe, Ann. & Mag. N. H. 4th ser. iv. p. 436. [The former represents *Æ. saturata*, but is perfectly distinct. Ld. Walden, Ibis, 1870, pp. 36, 37, pl. i. fig. 1.]

COTINGIDÆ.

"*Tilyra (Erator) leucura* (Natter.)" is an undescribed species from Brazil. A. von Pelzeln, Orn. Bras. pp. 120, 183, 184.

"*Lipaugus virussu* (Natter.)" is an undescribed species from Brazil; it may be *L. plumbeus*, ScL. (P. Z. S. 1861, p. 211), differing from *L. plumbeus* (Licht.) in its larger size, the light ochre-brown grey under tail-coverts, and the deep ochre-brown tinge of the remiges and rectrices. It may be *L. plumbeus*, ScL. (P. Z. S. 1861, p. 210 *et alibi*) (*nec* Licht.). *Id. op. cit.* pp. 122, 123, 184.

"*Heteropelma rufum* (Natter.)" and *H. chrysocephalum* are undescribed species from Brazil. The *first* is of the form of *H. virescens*, and, according to Messrs. Sclater & Salvin, allied to their *Neopipo rubicunda* noticed below, but identical with *Schiffornis major*, Bp. (Voy. Castelnau, p. 66, pl. 18. fig. 2): the *second* resembles *H. flavicapilla*, ScL., but is much smaller; from *H. aurifrons* (Pr. Max.) it differs by being larger, having a black mandible, and being brighter beneath. *Id. op. cit.* pp. 124, 125, 185, 186.

Heterocercus flavivertex is described as a new species from Brazil, much resembling *H. lineatus* (Strickl.), but with a yellow vertical spot, and no black on the head. *Id. op. cit.* pp. 125, 186. Its distinctness questioned. P. L. Sclater & O. Salvin, P. Z. S. 1869, p. 438, note.

Pipra opalians and *P. virescens* are undescribed species from Brazil: the *first* resembling *P. nattereri* (Zool. Rec. i. p. 76), but with the vertex shining like mother-of-pearl and opalescent, and other differences; the *second* is not comparatively-described. A. von Pelzeln, Orn. Bras. p. 128, 186-188.

Pipra (♀) *cinnamomea* is a new species from the Upper Amazon, having the wings shorter and the tail longer, relatively, than any other member of the genus known to the author. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 361.

Neopipo is the name proposed for a new genus allied to *Heteropelma*; but the characters are so given that we are unable to make an abstract of them. The type is

N. rubicunda, which is figured and described as a new species, but would seem likely to be identical with *Pipra cinnamomea*, Lawrence (*ut supra*); it is also allied to "*Heteropelma rufum* (Natter)," Pelz., above mentioned, but is much smaller. P. L. Sclater & O. Salvin, P. Z. S. 1869, pp. 438, 439, pl. xxx. fig. 3.

Ampelion arcuatus is figured and a diagnostic list of the four species of the genus given. *Id. Ex. Orn.* pp. 171, 172, pl. lxxxvi.

Chasmorhynchus variegatus [cf. Zool. Rec. iv. p. 94] occurs in British Guiana. P. L. Sclater, Ibis, 1869, p. 462.

AMPELIDÆ.

Eopsaltria leucura and *E. chrysorrhoa* are two new species: the first, from Cape York, is the largest of the genus, and allied to *E. leucogaster*, but having white at the base of the lateral rectrices; the second, from Eastern New South Wales and Southern Queensland, is rather larger than *E. australis*, under which name it has been figured (B. Austral. iii. pl. 11), and similar in colour, but having the rump, as well as the breast, of a jonquil-yellow. "*E. magnirostris*, Ramsay"*, from Rockingham Bay, is also differentiated as being like *E. chrysorrhoa* in colour, but having a conspicuously larger bill and shorter wings. J. Gould, Ann. & Mag. N. H. 4th ser. iv. pp. 108, 109. The first named of these species figured. *Id.* B. Austral. Suppl. pt. v.

Pardalotus xanthopygus (Zool. Rec. iv. p. 95), note on the original description of it. E. P. Ramsay, Ibis, 1869, p. 346.

TIMALIIDÆ.

Trochalopteron fairbanki is described and figured as a new species from the Pulney Hills in Southern India, very like *T. jerdoni*, and of about the same size, but with the head dusky above, with a distinct boundary, the back olivaceous, from the chin to the breast grey, the abdomen and under tail-coverts ferruginous. W. T. Blanford, J. A. S. B. xxxviii. pp. 175-177, pl. xvii. a.

Drymochares stellatus (Zool. Rec. v. pp. 80, 81) is figured. J. Gould, B. As. pt. xxi.

HIRUNDINIDÆ.

Hirundo fuscicapilla (Zool. Rec. iv. p. 96) is at last described as resembling *H. grisopyga*, Sundev. (Æfvers. k. Vet. Ak. Förhandl. 1850, p. 117), but with a larger and broader bill, the rump of a smoky steel-colour, longer wings, and a differently shaped tail which has white spots on the rectrices. M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 154, 155.

"*Hirundo domicella*, Hartl. & Finsch," is the name given to *H. melanocrissus*, Hartl. (Orn. Westaf. p. 27) and Antinori (Cat. Ucc. Afr. centr. Nord, p. 26) (*nec* Rüpp.). It much resembles *H. melanocrissa (vera)*, but is smaller, slenderer, and of a purer white beneath. *Id. tom. cit.* pp. 159, 160†.

Hirundo angolensis (Zool. Rec. v. p. 81) is figured and noticed. R. B. Sharpe, P. Z. S. 1869, p. 567, pl. xliii.

Hirundo aethiopica is a new species from Abyssinia and Nubia, resembling *H. albigularis*, Strickl. (Contr. Orn. 1849, p. 17, pl. xv.), but plainly smaller, with the pectoral band interrupted, and the throat and breast tinged with rufous. It is *Cecropis rufifrons* auctt., ex Abyssinia, and *H. albigularis*, Heugl. (Orn. Nordost-Afr. i. p. 153) (*nec* Strickl.). W. T. Blanford, Ann. & Mag. N. H. 4th ser. iv. p. 327. [Figured, *Id.* Geol. & Zool. Abyss. (1870) pl. ii.]

H. albigularis, Strickl. (*ut suprâ*), is probably *H. rufifrons*, Vieill., which has been incorrectly described by Stephens. H. B. Tristram, Ibis, 1869, p. 436.

* Mr. Gould does not state whether this name is now used for the first time: it would seem to refer to a specimen mentioned by Mr. Ramsay (P. Z. S. 1868, pp. 384, 385), but not named there by him.

† In this instance, as in one already mentioned, the work of Drs. Finsch and Hartlaub is cited from the unpublished proof-sheets.

Waldenia is proposed as the name of a new genus having *Hirundo nigrita*, G. R. Gray (Gen. B. pl. xx.), as its type. The characters are given at some length, and amount, in brief, to this:—that it is allied to *Atticora* and *Hirundo*; but the former has round nostrils and no overhanging membrane, which last is possessed by the latter; but *Hirundo* has the first primary the longest, whereas the new genus has the second. It also has large, robust feet. R. B. Sharpe, Ibis, 1869, p. 461.

Hirundo horreorum, notes on. A. Fowler, Am. Nat. iii. pp. 8–13.

Hirundo riparia, notes on its habits in Massachusetts. *Id. tom. cit.* iii. pp. 116–119.

Cotyle palustris, Steph. Under this name two distinct species have been confounded,—the Northern one, which should bear the name *C. paludibula* [qu. potius *paludicola*?], Rüpp., being larger than the Southern, and having a large white spot on the inner web of each rectrix except the outer and middle pairs, with some other differences. The Southern form is the true *palustris*. H. B. Tristram, Ibis, 1869, pp. 436, 437.

Chelidon urbana is figured. J. Gould, B. Gr. Br. pt. xv.

VIREONIDÆ.

Hylophilus hypoxanthus is an undescribed species from Brazil, standing nearest to *H. brunneiceps* (Zool. Rec. iii. p. 91), but differing in the yellow of the underside. A. von Pelzel, Orn. Bras. pp. 71, 136.

Cyclorhis wiedi is regarded as an undescribed species from Brazil, resembling *C. flavipectus*, ScL (P. Z. S. 1858, p. 448), but with the upper parts brown slightly tinged with grey; the throat, middle of the belly, and vent altogether white. It is also much like *C. subflavescens*, Cab. (J. f. O. 1860, p. 405, 1861, p. 93); but this last shows more yellow beneath. It is *Thamnophilus guianensis*, Pr. Max. (Beitr. iii. no. 1016) (*nec* Gmel.), and, perhaps, *C. viridis*, Baird (Rev. Am. B. p. 392)—*synon. exclus.* *Id. op. cit.* pp. 74, 187, 188.

TYRANNIDÆ.

Attila validus, *A. rufularis*, and "*A. phenicurus* (Natter.)" are three undescribed species from Brazil. The *first* resembles *A. bolivianus*, Laf., but is larger, with the nape more rufescent and the lower parts paler: the *second* differs from *A. thamnophiloides* (Spix) by being smaller, olivaceous above, the edges of the wing-coverts rust-coloured, and the abdomen almost whitish; from *A. spadiceus* (Gm.) by being larger, with the throat rust-coloured and the tail rufous; and from *A. uropygialis* by the second of these characters: the *third* resembles *A. cinereus* in colour, but approaches the genus *Casiornis* in its small bill. A. von Pelzel, Orn. Bras. pp. 95, 96, 169–172.

Agriornis insolens is a new species from Peru, resembling *A. solitaria* of Ecuador, but much paler below, and with distinct black markings on the white throat. P. L. Sclater & O. Salvin, P. Z. S. 1869, p. 153.

A. andicola, Sclater (P. Z. S. 1860, p. 78) is called *A. pollens*, the former specific name having been used by Lafresnaye and D'Orbigny. P. L. Sclater, *loc. cit.* note.

Ochthæca polionota is a new species from Peru, resembling *O. œnanthoides*, but with an ash-coloured back, the outer rectrices edged with white, and

wanting the rufous margin of the wing-coverts. P. L. Sclater & O. Salvin, P. Z. S. 1869, pp. 599, 600.

Ochthæca rufomarginata is described as a new species from Ecuador, allied to *O. lessoni*, but wanting the rufous throat and breast and the conspicuous white band encircling the crown; it has also the middle as well as the greater wing-coverts ending with rufous. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, p. 266.

Meocerculus uropygialis is described as a new species, supposed to come from Ecuador, somewhat resembling *M. leucophrys*, but paler beneath, with a smaller bill and rufous rump. *Id. tom. cit.* pp. 266, 267.

Lichenops perspicillatus. The statement (P. Z. S. 1868, p. 141) that the female has the plumage black contradicted. W. H. Hudson, P. Z. S. 1869, p. 432.

Centrites oreas, from Peru, is differentiated from *C. niger*, with which it was before confounded (P. Z. S. 1867, p. 987, 1868, p. 569), having the webs of the primaries whitish in the male and tinged with cinnamon in the female. P. L. Sclater and O. Salvin, *tom. cit.* p. 154. Figured (♂ & ♀). *Id. Ex. Orn.* pp. 191, 192, pl. xevi.

Todiostrotrum guttatum is an undescribed species from Brazil, agreeing much with *Tricicus illigeri*, Cab. & Heine (Mus. Hein. ii. p. 49); but in the description of that species no mention is made of the large and conspicuous white spot before the eye, nor of the black spots on the sides of the neck and breast; the bill, too, though broad, seems to be weaker. A. von Pelzeln, Orn. Bras. pp. 101, 172, 173.

Todiostrotrum plumbeum (Gmel.), note on. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 273, 274.

Eucarthmus zosterops, *E. latirostris*, *E. senex*, and *E. inornatus* are undescribed species from Brazil. The first is like *E. orbitatus* (Pr. Max.), but has a shorter bill, broader at the base, the mandible for the most part dark, and the breast and the edges of the wing-coverts yellowish; the second is like *E. fumifrons*, but with a longer and much broader bill, and a lead-coloured crown; the third differs from the second by its shorter and less broad bill, the forehead is not rufescent, the edges of the wing-coverts are whitish, and the mandible and feet darker; the fourth is not comparatively described. A. von Pelzeln, Orn. Bras. pp. 101, 102, 173, 174.

Hapalocercus rufomarginatus is an undescribed species from Brazil. *Id. op. cit.* pp. 103, 174, 175.

Pogonotriccus (?) zeledoni is described as a new species from Costa Rica, but may belong to *Leptotriccus*. It is not comparatively diagnosed. G. N. Lawrence, Ann. Lyc. N. H. New York, 1868 (not published till 1869), pp. 144, 145.

Pogonotriccus plumbeiceps is described as a new species from Bogota, but no comparative diagnosis is given. *Id. op. cit.* 1869, p. 267.

"*Phyllomyias subviridis* (Natter.)" and "*P. lividus* (Temm.)" are undescribed species from Brazil. The first differs from *P. virescens* by the colour of its iris and being greyer above, besides having a stronger bill nearly wanting rictal bristles, a shorter tail and warty tarsi; the second, which was not obtained by Natterer, is not comparatively differentiated. A. von Pelzeln, Orn. Bras. pp. 105, 175, 176.

Elainea spectabilis, *E. cristata*, *E. albivertex*, *E. parvirostris*, *E. elegans*, *E. ruficeps*, "*E. littoralis* (Natter.)," and *E. cinerea* are undescribed species from

Brazil. The *first* is very like *E. pagana* (Licht.), but much larger, and, as is also the case in many examples of that species, no white is visible at the base of the head-feathers; it also comes very near *E. subpagana*, but this is certainly smaller, and differs in the form and colours of the bill: the *second* is like *E. pagana*, but is smaller, and, except on the crown, is paler above, and has the breast less varied with grey; it seems to differ from *E. semi-pagana*, Scl., in being paler above and inclined to brown, with a white throat only: the *third* differs from *E. albiceps* (Lafr. & D'Orb.) by being a little smaller, with the bill broader at the base, the body brownish above: the *fourth* is very like the third, but has a smaller bill and the body more inclined to olivaceous above: the *fifth* is not unlike *E. griseigularis*, Scl., but is much smaller and differently coloured beneath: the *sixth* and *seventh* are not comparatively described; and the *eighth* is like *E. caniceps* (Sw.), but much larger and of a pure ash-colour. *Id. tom. cit.* pp. 107, 108, 176-181.

Myiozetetes rufipennis and *M. inornatus* are described as new species from Venezuela, the former differing from all others of the genus in the larger and stouter bill and the greater extent of rufous on the wings and tail; of the latter no comparative diagnosis is given. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 267, 268.

Rhynchocyclus assimilis is an undescribed species from Brazil, like *R. sulphureus* (Spix), but smaller and with a shorter, broader and more pointed bill. A. von Pelzeln, Orn. Bras. pp. 110, 181.

Rhynchocyclus marginatus is described as a new species from Panama, formerly referred by the author (Ann. Lyc. N. H. New York, vii. p. 473) to *R. sulphureus*; but that is larger, with the head less plumbeous, the yellow beneath deeper and more extended, and other differences. It resembles *R. cinereiceps*, Scl., but is smaller and of a darker green, and may be readily known by the broad yellow margins of the wing-coverts and quills. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 361.

Pitangus parvus is an undescribed species from Brazil. A. von Pelzeln, Orn. Bras. pp. 111, 181.

SCLATER, P. L. Note on the Species of the Genus *Hirundinea*. Ibis, 1869, pp. 195-198, pl. v.

Three species are distinguished and figured, *H. ferruginea* (Gmel.), *H. bellicosa* (Vieill.), and *H. rupestris* (Max.), and their geographical range pointed out. So much as is known of their habits is also given.

Empidonax paucilocercus is an undescribed species from Brazil. A. von Pelzeln, Orn. Bras. pp. 116, 181, 182.

Empidonax griseipectus is described as a new species from Puna Island in the Gulf of Guyaquil, but no comparative diagnosis is given. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 236, 237.

Contopus ochraceus is a new species from Costa Rica, readily distinguishable from every other by its yellowish ochre-coloured belly. P. L. Sclater & O. Salvin, P. Z. S. 1869, p. 419.

Contopus schotti is described as a new species from Northern Yucatan, resembling *C. lugubris* (Zool. Rec. ii. p. 107) in its dull dark colouring, but is smaller and reddish-brown above, the throat and breast being dull ochreous, and the bill much smaller. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, p. 202.

Contopus punensis is described as a new species from Puna Island, in the Gulf of Guyaquil, differing from all others of the genus in the absence of the clouded colouring from the breast; beneath it resembles *Empidonax* in coloration; but its very large bill (which exceeds that of *C. richardsoni*) and short tarsi show its affinity to *Contopus*. *Id. tom. cit.* p. 237.

Myiarchus cantans, "*M. tricolor* (Natter.)," and *M. gracilirostris* are undescribed species from Brazil. The first is like *M. ferox*, but smaller and, for the most part, without any red on the remiges and rectrices; the second differs from *M. nigriceps*, which has a black crown and apparently longer wings; the third resembles the second, but is much larger, with a more slender bill, the crown not so dark, and the middle of the back nearly olivaceous. A. von Pelzel, Orn. Bras. pp. 117, 182, 183.

Tyrannus verticalis, its habits. R. Ridgway, Am. Nat. iii. pp. 309-312.

LANIIDÆ.

Lanius fallax is proposed as the name of a new species from Abyssinia, to be described in the Zoological 'Transactions'! O. Finsch, P. Z. S. 1869, p. 430. [*Is L. lahtora* juv. *fide* R. B. Sharpe, Ibis, 1870, pp. 434, 435.]

Lanius caudatus is described and figured as a new species from Mombas, in East Africa, in the distribution of colour resembling *L. collaris*; but the long tail agrees with *L. excubitorius*, and the much developed feathers of the forehead point to *Urolestes*. J. Cabanis, J. f. O. 1868 [published in 1869], p. 412; *Id.* Von der Decken's Reisen, iii. 1, p. 28, pl. v.

Lanius personatus, notes on. T. Krüper, J. f. O. 1869, pp. 30-32.

Lanius superciliosus and *L. magnirostris* both occur in Java. The first is *L. phœnicurus*, Schrenck (*qu. Pall.?*) (*cf.* Zool. Rec. iv. pp. 97, 98). *Id.* Walden, Ibis, 1869, p. 242.

Collyrio [*sc. Lanius*] *ludovicianus*, its habits. A. Fowler, Am. Nat. ii. p. 659; H. S. Gedney, *op. cit.* iii. pp. 159, 160.

Rhynchastatus lugubris is described and figured as a new species, almost entirely of a blackish slaty grey, much resembling *R. funebris* (Hartl.), but smaller. J. Cabanis, J. f. O. 1868 (published in 1869), p. 412; *Id.* Von der Decken's Reisen, iii. 1, pp. 26, 27, pl. vii.

Dryoscopus leucopsis is described as a new species (from Zanzibar), smaller than *D. affinis*, Gray, with a thicker and broader bill, wings without white markings, and lores and region of the eyes white. *Id.* J. f. O. 1868 [published in 1869], p. 412. Possibly identical with *D. orientalis*, Swains. *Id.* Von der Decken's Reisen, iii. 1, pp. 25, 26.

Dryoscopus thamnophilus is described and figured as a new species from East Africa, in colouring resembling *Thamnophilus ambiguus*, Swains. *Id. tomm. cit.* pp. 412 & 26, pls. viii. & ii.

Artamus melanops (Zool. Rec. ii. p. 108) is figured. J. Gould, B. Austral. Suppl. pt. v.

Myiolestes heinii is described as a new species from the Tonga Islands; but it may be *Turdus pacificus*, Gmelin (Syst. Nat. i. p. 813), founded on a bird described by Latham (Synops. ii. 1, p. 38), whose diagnosis is too short and incomplete to admit of recognition. O. Finsch & G. Hartlaub, P. Z. S. 1869, p. 546.

Prionops graculinus is described and figured as a new species from East Africa, entirely wanting the white wing-band of *P. retzii*, Wahlb. J.

Cabanis, J. f. O. 1868 (published in 1869), p. 412, tab. iii.; *Id.* Von der Decken's Reisen, iii. 1, pp. 24, 25.

CAMPEPHAGIDÆ.

"*Campephaga quiscalina*, Finsch," is a new species hitherto confounded (Proc. Ac. Philad. 1859, p. 52, and J. f. O. 1865, p. 173) with *C. nigra* (Vieill.), from which it differs in being generally smaller, and having the sides of the head, neck, and throat of a brilliant purplish-violet, the inner web of the quills wanting the olive-green lustre, and the bill shorter, broader, and more conical. R. B. Sharpe, Ibis, 1869, p. 189.

MUSCICAPIDÆ.

Monarcha albigentris (Zool. Rec. iii. p. 93) is figured. J. Gould, B. Austral. Suppl. pt. v.

Tchitrea paradisi ♂, when breeding, wears the chestnut plumage. A. Hume, Ibis, 1869, pp. 9, 10; W. E. Brooks, *tom. cit.* p. 49.

Elminia longicauda minor (cf. Zool. Rec. iv. p. 99) and *Stenostira plumbea* are figured. M. T. v. Heuglin, Orn. Nordost-Afr. tt. xv., xvii.

"*Muscicapa speculigera*, De Selys," Bp. (Consp. Av. i. p. 317), has occurred in Switzerland. L. Olphe-Galliard, R. Z. 1869, pp. 363-365.

Muscicapa atricapilla, its unusual abundance in Norfolk. H. Stevenson, Zool. S. S. pp. 1492, 1943.

Muscicapa minima and *M. aquatica* are figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xvi.

Erythrostera parva is figured. J. Gould, B. Gr. Br. pt. xvi.

MNIOTILTIDÆ.

Helminthophaga peregrina, supposed to have been said by Mr. Trippe (cf. Zool. Rec. v. p. 85) to be rare in New England, is very common in Maine. G. A. Boardman, Am. Nat. iii. p. 222. Further notes on its distribution; Mr. Trippe's remarks refer to New Jersey. H. A. Purdie, *tom. cit.* p. 331; T. M. Trippe, *tom. cit.* p. 496.

Helminthophaga chrysoptera, notes on. H. A. Purdie, *tom. cit.* p. 497.

Dendroica capitalis is described as a new species from Barbadoes, only needing comparison with *D. petechia* and *D. ruficapilla* (?) (Zool. Rec. ii. pp. 110, 111); but it is smaller than either, and has a different wing-formula, the second, third, and fourth quills being equal and longest, the first being intermediate between the fourth and fifth; it also seems to have more yellow in the tail. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 359.

"*Basileuterus leucophrys* (Natter.)" is a new species from Brazil, resembling *B. leucoblepharus* (Vieill.), but much larger, with the cap marked out by obsolete black stripes, with broad white eyebrows, and more olivaceous above. A. von Pelzeln, Orn. Bras. pp. 72, 137.

TURDIDÆ.

Turdus musicus in captivity. K. Müller, Zool. Garten, 1869, pp. 272-280.

Turdus — P, supposed Siberian species breeding in the Government of Archangel. H. Göbel, J. f. O. 1869, pp. 318, 319.

Turdus confusus (Zool. Rec. i. p. 79) is referred to *T. migratorius*. D. G. Elliot, B. N. Am. Intr. p. 3.

Turdus gigas, *T. albicollis*, *T. leucomelas*, *T. crotopseus*, *T. albiventris*, *T. phæopygus*, and *T. gymnophthalmus* are figured. P. L. Sclater & O. Salvin, Ex. Orn. pp. 139–152, pls. lxx–lxxvi.

Turdus viscivorus (ad. & pull.) and *Petrocincla saxatilis* are figured. J. Gould, B. Gr. Br. pt. xv.

Turdus reevii is described as a new species from Puna Island in the Gulf of Guyaquil, coming under the section *Planesticus*; but no comparative diagnosis is given. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, p. 234.

Turdus haurwelli is described as a new species from Pebas in Peru, only needing comparison with *T. leucomelas*, Vieill., than which it is uniformly darker and reddish-brown above, with no olive shades. *Id. tom. cit.* pp. 265, 266.

Turdus nanus (cf. Zool. Rec. v. p. 85), a mistake rectified. O. J. Maynard, Am. Nat. ii. p. 663.

Hylocichla:—The eight North-American species of this section are minutely characterized. *Turdus mustelinus* stands alone; *T. fuscescens*, *T. ustulatus*, *T. swainsoni*, and *T. aliciae* form a second group; and a third comprises *T. pullasi*, *T. auduboni* (which perhaps may not be a good species), and *T. nanus*. R. Ridgway, Proc. Ac. N. S. Philad. 1869, pp. 127–129.

Turdus atrigularis has occurred in Sussex. J. Gould, Ibis, 1869, p. 128; G. D. Rowley, P. Z. S. 1869, p. 4; T. J. Monk, Zool. S. S. p. 1560.

Turdus deckeni is described and figured as a new species from East Africa, smaller and darker than *T. cabanisi*, Bp., with the middle of the belly and the flanks dull, and the under wing-coverts deeper rusty. J. Cabanis, J. f. O. 1868 [published in 1869], p. 412; *Id.* Von der Decken's Reisen, iii. 1, pp. 21, 22, pl. i.

Turdus hodgsoni, *Cichloides atrigularis* and *Merula boulboul*, descriptions of the different plumages of adult and young. R. S. Tytler, Ibis, 1869, pp. 122–126.

Oreocincla aurea is figured. J. Gould, B. Gr. Br. pt. xvi.

SHARPE, R. B. On the genus *Chætops*. Proc. Zool. Soc. 1869, pp. 163, 164, pl. xiv.

Three species, including *C. aurantius* (Zool. Rec. v. p. 85), are recognized, whereof one,

C. grayi, from Damara-land, is described and figured as new: it differs from both the others by its smaller size and whitish throat. Identified with *Drymaeca anchieta* (Zool. Rec. v. p. 87). G. Hartlaub, Bericht, u. s. w. p. 126.

Crateropus affinis is described as a new species from Mossamedes (W. Africa), but may possibly be *C. plebeius*, Hartl. (Orn. Westafr. p. 79). J. V. Barboza du Bocage, P. Z. S. 1869, p. 436.

Turnagra hectori is described as a new species from New Zealand. W. Buller, Ibis, 1869, p. 39. Probably identical with *Otagon tanagra* (Zool. Rec. ii. p. 112). A. Newton, loc. cit. note.

Cossypha subrufescens is a new species from Caconda (W. Africa), resem-

bling *Bessornis semirufa*, Rüpp., but stouter and differently-coloured above. J. V. Barboza du Bocage, P. Z. S. 1869, p. 436.

SYLVIIDÆ.

Bessornis intermedia is described and figured as a new species from East Africa, smaller, and beneath darker, than *B. heuglini*, Hartl. (the head of which is also figured), and the white superciliary streak narrower and longer. J. Cabanis, J. f. O. 1868 [published in 1869], p. 412; *Id.* Von der Decken's Reisen, iii. 1, p. 22, pl. xii.

Bessornis heuglini is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xiii.

Bessornis gutturalis (Zool. Rec. iv. p. 102), notes on. T. Krüper, J. f. O. 1869, pp. 42-45.

Myrmecocichla formicivora, its habits described. G. E. Bulger, P. Z. S. 1869, pp. 637, 638.

Saxicola ferruginea, Heugl. (Sitzungsb. k. Ak. Wissensch. Wien, 1856, p. 278 [*descr. null.*]), is now described as *S. frenata*. It is *S. isabellina* jun., Rüpp. M. T. v. Heuglin, J. f. O. 1869, pp. 158, 159; Orn. Nordost-Afr. pp. 345, 346.

"*Saxicola heuglini*, Finsch & Hartl.," is an undescribed species from Abyssinia, resembling *S. frenata*, but much smaller and more dusky. It is *S. intermedia*, Heugl. (Sitzungsb. k. Ak. Wissensch. Wien, 1856, p. 278) (*descr. null.*). *Id. tomm. cit.* p. 159 & pp. 346, 347.

Saxicola finschi is a new species from Siberia, resembling *S. leucomelana*, but smaller, and having the middle of the back white. *Id.* Orn. Nordost-Afr. p. 350.

Saxicola syenitica, Heugl. (Sitzungsb. k. Ak. Wissensch. Wien, 1856, p. 278), is described as resembling *S. leucocephala*, but smaller. It is perhaps identical with *S. leucuroides*, Guér.* *Id.* J. f. O. 1869, p. 155; Orn. Nordost-Afr. i. pp. 358, 359.

Saxicola modesta and *S. scotocerca* are also described as two new species from North-east Africa. The first is not described comparatively; and the second is admittedly identical with *Rubicilla* (?) *fuscaudata*, Blanford (Ann. & Mag. N. H. 4th ser. iv. p. 329, 1 Nov. 1869), a name which has priority of publication. *Id. tom. cit.* pp. 362, 363.

Saxicola saltatrix, notes on. T. Krüper, J. f. O. 1869, pp. 35, 36. W. E. Brooks, Ibis, 1869, pp. 234, 235.

Saxicola leucura and *S. leucuroides*, notes on. *Id. loc. cit.*

Saxicola arnotti, *S. atmorii*, and *S. modesta* are described as new species from South Africa. The first, which is figured, is entirely black, except the forehead, a few feathers on the crown, the superciliary streak, and the "scapulars" (?), all these parts being, according to the description (but not the plate), white. The second is the representative of *S. lugubris*, Rüpp., but is much larger, and has a narrow white instead of a broad chestnut rump, and a narrower black bar at the tip of the tail. The third, it is suggested, may be identical with *Erethacus schlegeli*, Wahlberg (K. Sv. Vet.-Ak. Förhandl. 1855, p. 213), a supposition since verified (Ibis, 1870, p. 173). H. B. Tristram, *tom. cit.* pp. 204-207, pl. vi.

Saxicola (*Pratincola*) *semitorquata* is described as a new species from Abyssinia resembling *S. albefasciata*, Rüpp. It is *Pratincola melanoleuca*,

* But the author also quotes for it "P. *S. leucuroides*, Jerd. (nec Guér.)!"

Heugl. (Sitzungsber. k. Ak. Wissensch. Wien, 1856, p. 279) (*nec* Hodgson), and probably *Parus leucopterus*, Lefebvre. M. T. v. Heuglin, J. f. O. 1869, p. 166. Referred to *Pratincola*. *Id.* Orn. Nordost-Afr. i. pp. 341, 342*. [♂ & ♀ figured, W. T. Blanford, Geol. & Zool. Abyss. (1870) pl. v.]

Pratincola indica in no respect differs from *P. rubicola*. W. E. Brooks, Ibis, 1859, pp. 53-55.

Ruticilla (?) *fuscicaudata* is a new species from Abyssinia, nearly allied to *R. (Saxicola) familiaris*, Steph., and *R. (Erythacus) sinuata*, Schl. The bill is that of *Ruticilla*, and the tarsi are smooth in front; but the tail is somewhat rounded and the wing less pointed, and the sombre plumage is that of *Sylvia*. W. T. Blanford, Ann. & Mag. N. H. 4th ser. iv. p. 329 (1 Nov. 1869). [Figured, *Id.* Geol. & Zool. Abyss. (1870), pl. iv.]. Since described as *Saxicola scotocerca*. M. T. v. Heuglin, *ut supra*.

Luscinia philomela in captivity. K. Müller, Zool. Garten, 1869, pp. 167-175; C. Jex, *tom. cit.* pp. 286-288.

Stellula calliope is figured. D. G. Elliot, B. N. Am. pt. xiii.

Gerygone assimilis (Zool. Rec. iii. p. 95) is not distinguishable from *G. flaviventris*. O. Finsch, Ibis, 1869, p. 380.

Acrocephalus arabicus is a new species, from Arabia, resembling *A. turdoides* [*arundinaceus*, L.], but with a stouter and blunter bill higher at the base, longer legs, a more conspicuous whitish superciliary streak, the outer web of all the primaries with a narrow and conspicuous margin, and other differences. It is *A. stentorius*, Heugl. (J. f. O. 1861, p. 194) (*nec* H. & E.), and *A. turdoides*, Rüpp. ex Arabia (*nec* Mey.). M. T. v. Heugl. Orn. Nordost-Afr. i. pp. 289, 290.

Acrocephalus obsoletus is a new species, from North-eastern Africa, resembling *A. arundinaceus* (Gm.) (*nec* L.) [*sc. streperus* (Vieill.)], but smaller, with longer wings and tail, shorter and stouter legs, and the colouring of *Chloropeta pallida*. *Id.* *tom. cit.* pp. 291, 292.

Calamodyta and allied genera. Notes on the history of European species. R. Renne, Ber. XVII. Versamml. D. O. G. pp. 40-47.

Calamodyta schænobaenus, its occurrence in Finland. A. J. Malmgren, Öfvers. Finska Vet. Sälls. Förhandl. 1869, no. 1.

Calamotherpe rufescens (Keyserl. & Blas. Wirbelth. Eur. p. liv), its habits described. T. Ayres, Ibis, 1869, pp. 291, 292.

Sylvia locustella, on its local distribution in Germany in summer. A. von Homeyer, J. f. O. 1869, pp. 61-66. In captivity. C. Fickert, J. f. O. 1869, pp. 322-326.

Luscinopsis fluviatilis, its occurrence in Finland. A. J. Malmgren, Öfvers. Finska Vet. Sälls. Förhandl. 1869, no. 1.

Aedon familiaris, notes on. T. Krüper, J. f. O. 1869, pp. 38-42.

* It must be observed that this species (as the printed minutes show) was exhibited, described, and named by Mr. Blanford at the meeting of the Zoological Society, 24th June, 1869. Before that description was published, the name only having been printed, the third *Heft* of the 'Journal für Ornithologie,' bearing date "Mai, 1869," but not sent out by the English publishers till August, appeared, containing Dr. von Heuglin's name and description, whereupon Mr. Blanford immediately withdrew the name under which he had publicly designated the species, thereby setting an excellent example, which other naturalists would do, and would have done, well to follow.

Sylvia atricapilla and *S. hortensis* in confinement. K. Müller, Zool. Garten. 1869, pp. 367-374.

Sylvia melanocephala minor is the title given to the East-African and Syrian form of *S. melanocephala*. It is *Curruca momus*, H. & E., *C. luctuosa*, Brehm (Vogelf. p. 229), *Melizophilus nigricapillus*, Cab. (Mus. Hein. i. p. 35), and *S. boumani*, Tristr. (Zool. Rec. iv. p. 103). M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 303, 304.

HEUGLIN, M. T. VON. The *Malurinæ* of North-eastern Africa.

Ibis, 1869, pp. 79-107, 129-143, pls. i.-iii.

Under this designation the author groups the genera *Aedon*, *Bradypterus*, *Catircus*, *Oligocercus*, and *Camaroptera*, as well as *Hemipteryx* and *Drymæca*, which last he finally separates into (1) *Drymæca* proper, including the species which have 10 rectrices, and (2) *Cisticola*, those which have 12 (*cf.* Jerdon, B. Ind. ii. pp. 164-187; and P. Z. S. 1865, p. 48)—a character possessed also by *Catircus*, *Hemipteryx*, and *Oligocercus*. This separation is further maintained when he treats of the group in his general work.

Sphenæacus alexine, Heugl. (J. f. O. 1863, p. 166), is "*Catircus apicalis* (Licht.)," Cab. (Mus. Hein. i. p. 43, note). M. T. v. Heuglin, Ibis, 1869, p. 81. Figured, and its identity with *Bradypterus brevisrostris*, Sundev. (K. Sv. V.-A. Handl. 1860), already suggested by Dr. Hartlaub (Ibis, 1866, p. 140), confirmed. *Id.* Orn. Nordost-Afr. i. p. 273, t. ix.

Drymæca murina appears to be described as a new species from Abyssinia, resembling *D. mystacea*, but much smaller, with a more slender bill and other differences. It is *D. mystacea*, pt., Heugl. *Id.* Ibis, 1869, p. 90; Orn. Nordost-Afr. i. p. 241.

Drymæca virgata is described as a new species from the Cape of Good Hope and West Africa, very like *D. simplex* (sp. n., *vide infra*), but distinguished by the peculiar striation on the breast. *Id.* Ibis, 1869, p. 106. Called *D. striolata*. *Id.* Orn. Nordost-Afr. i. p. 262. [The name here first mentioned has priority of publication.]

Drymæca marginata, from North-eastern Africa, is for the first time described and figured. It is like *D. erythrogenys*, Rüpp., but much smaller, the bill rather shorter and much more curved, the feet, wings, and tail considerably shorter; and there are other differences. It is *D. marginalis*, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 274) (descr. null.). *Id.* Ibis, 1869, pp. 94, 95, pl. i. fig. 1. Referred to *Cisticola*. *Id.* Orn. Nordost-Afr. i. pp. 248, 249.

Drymæca iodoptera (Zool. Rec. i. p. 81) and *D. flaveola* are figured. *Id.* Ibis, 1869, pl. i. fig. 2, pl. ii. fig. 2.

Drymæca cantans, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 274), is described. It differs from *Cisticola lugubris*, Rüpp., by the distinct whitish superciliar streak, rather smaller size, more curved bill, and other characters. *Id.* tom. cit. pp. 96, 97. Referred to *Cisticola*. *Id.* Orn. Nordost-Afr. i. p. 252, 253.

Drymæca concolor is described and figured as a new species from North-eastern Africa, exceedingly like the preceding, but with a stronger bill, more brightly coloured above, and other characters. *Id.* Ibis, 1869, pp. 97, 98, pl. ii. fig. 1. Referred to *Cisticola*. *Id.* Orn. Nordost-Afr. i. pp. 253, 254.

Drymæca malzaci, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 274), is described as differing from *D. robusta*, Rüpp., by its lighter-coloured, shorter,

more curved and higher bill, its coloration above, and its longer under tail-coverts. *Id. Ibis*, 1869, pp. 100, 101. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* pp. 255, 256.

Drymæa biconura, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 274), is identified first with *D. erythrogyne*, Rüpp., and then with *D. lugubris*, Rüpp. *Id. Ibis*, 1869, pp. 95-101. Referred to *Cisticola*, and the first identification only maintained. *Id. Orn. Nordost-Afr. i.* p. 250.

Drymæa leucopygia, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 274), is described as doubtfully distinct from *D. ruficeps* (Rüpp.), than which it is stouter, with a longer and stronger bill, besides some differences of coloration. *Id. Ibis*, 1869, p. 104. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* p. 259.

Drymæa cordofana, from Kordofan, is doubtfully described as distinct from *D. ruficeps* (Rüpp.), having the bill more slender, broader at the base, and its culmen more arched, besides a difference in coloration. *Id. Ibis*, 1869, p. 105. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* p. 260.

Drymæa simplex is a new species from North-eastern Africa, at first sight like *D. ruficeps* (Rüpp.), but with the outer toe shorter than the inner, and a different coloration. M. T. v. Heuglin, *Ibis*, 1869, pp. 105, 106. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* p. 261.

Drymæa erimia is described and figured as a new species from North-eastern Africa, in appearance like *Cisticola schanicola*, but with a narrow, longer, and more graduated tail, and brighter coloration. It still more resembles the Australian *D. lineocapilla*, Gould, but has longer tarsi and wings, and shorter and narrower rectrices. It cannot be confounded with any species of its own country. *Id. Ibis*, 1869, pp. 106, 107, pl. iii. fig. 1. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* p. 262.

Drymæa valida (Zool. Rec. i. p. 81) is called *D. pachyrhyncha*, the former specific name being, it is said, preoccupied. *Id. Ibis*, 1869, pp. 130, 131. Referred to *Cisticola*. *Id. Orn. Nordost-Afr. i.* p. 263.

Drymæa (?) *trogodytes* (Zool. Rec. i. p. 81) is identical with *Cisticola ferruginea*, Heugl. (Sitzungsb. Ak. Wissensch. Wien, 1856, p. 273, *descr. null.*; J. f. O. 1864, p. 259, *descr. prim.*), which is figured. *Id. Ibis*, 1869, p. 135, pl. iii. fig. 2. [We cannot determine the priority of these two specific names; the mere bestowal of Dr. von Heuglin's in 1856 goes for nothing, as no description was published with it.]

Cisticola brunneescens, Heugl. (J. f. O. 1862, p. 289), is referred to *Hemipteryx*, and called *H. oligura*, no reason being assigned for the change of name. It is also figured. *Id. Ibis*, 1869, p. 136, pl. iii. fig. 3; *Orn. Nordost-Afr. i.* p. 270.

Hemipteryx immaculata (Zool. Rec. iii. p. 96) is identical with the above. O. Finsch, *Ibis*, 1869, p. 137.

Hemipteryx iodopyga is a new species, from North-east Africa, resembling *H. brunneescens* (Heugl.), but with the head striated like *Cisticola schanicola*, and some other differences. M. T. v. Heuglin, *loc. cit.*; *Orn. Nordost-Afr. i.* pp. 271, 272.

Hemipteryx oligura is figured. *Id. Ibis*, 1869, pl. iii. fig. 3.

Hemipteryx habessinica is a new species resembling *Cisticola schanicola*, but more brightly coloured, and having longer wings, a shorter and more graduated tail, with narrower rectrices, and other differences. *Id. tom. cit.* p. 138; *Orn. Nordost-Afr. i.* p. 272.

Cisticola hamatocephala is described and figured as a new species from

East Africa, somewhat smaller than *C. lugubris*, Rüpp., the occiput not deep rusty, but subdued by an olive tinge, the sides of the breast and upper tail-coverts not spotted with black, and the rectrices greyish-brown, with a black spot in front of the white tip. J. Cabanis, J. f. O. 1868 [published in 1869], p. 412; *Id.* Von der Decken's Reisen, iii. 1. p. 23, t. ii. fig. 2. Occurs also in West Africa, is referred to *Drymæca*, and receives a new name, "*D. stulta*, Hartl. & Finsch," on account of the inapplicability of the old one!! O. Finsch, J. f. O. 1869, p. 335.

Drymæca tenella is described and figured as a new species from East Africa, differing from *D. mystacea*, Rüpp., in its larger bill, shorter wings and tail, and in being brownish-grey above. From *D. superciliaris*, Swains., it differs in not having rust-coloured flanks. J. Cabanis, J. f. O. 1868 (published in 1869), p. 412; Von der Decken's Reisen, *tom. cit.* pp. 23, 24, t. ii. fig. 1.

Drymæca anchietæ (Zool. Rec. v. p. 89): to this is referred *Chatops grayi*, Sharpe (cf. *suprà*, "Turdidæ"). G. Hartlaub, Ber. u. s. w. p. 126.

Drymæca ortleppi is described as a new species from the Cape Colony, bearing the same relation to *D. pallida*, A. Smith, that *Phyllopneuste trochilus* does to *P. bonellii*. H. B. Tristram, Ibis, 1869, pp. 207, 208.

Eremomela (?) *elegans* and *E.* (?) *canescens* (Zool. Rec. i. p. 81) are identical, and the species is made the type of a new genus.

Tricholais, which is allied to *Camaroptera*, "*Dryodromas*, Finsch & Hartl." (1870!), and *Eremomela*, and its characters given in much detail. M. T. v. Heuglin, Orn. Nordost-Afr. i. pp. 285, 286.

Hypolais cinerascens, *H. elatica*, *H. opaca*, *H. languida*, and *H. pallida* differentiated. *Id.* *tom. cit.* i. pp. 297, 298.

Phylloscopus habessinicus is a new species from Abyssinia, resembling *P. similis*, but more greenish above, and cream-colour, almost yellowish, beneath. It has also a longer tail. W. T. Blanford, Ann. & Mag. Nat. Hist. 4th ser. iv. pp. 329, 330. [Figured, *Id.* Geol. & Zool. Abyss. (1870), pl. 3. fig. 2.]

Phyllopneuste kennicotti is described and figured as a new species from Alaska, resembling *P. trochilus*, but more olivaceous above and yellow beneath, besides other differences; it also comes very near *P. eversmanni* (Bp.), of which it may be a permanent geographical variety. S. F. Baird, Trans. Chicago Ac. Sc. i. pp. 313, 314, pl. xxx. fig. 2.

Phyllopneuste (?), description of a supposed new species. W. E. Brooks, Ibis, 1869, pp. 235, 236. [*Jerdonia agricolensis*, A. Hume, Ibis, 1870, p. 180.]

Phyllopneuste (?) *macrorhyncha* is the name provisionally (!) given to a species from the Himalayas, resembling *P. rama* in size and plumage, but with an enormous bill. A. Hume, *tom. cit.* p. 357.

Reguloides superciliosus, a second example said to have been obtained in England. J. Gould, Ibis, 1869, p. 128. Its call-note different from that of *R. proregulus*. W. E. Brooks, *tom. cit.* pp. 236, 237. Further notes on these two species. *Id.* *tom. cit.* pp. 456-458. Figured, J. Gould, B. Gt. Br. pt. xv.

Regulus himalayensis (Zool. Rec. v. p. 87) is figured. *Id.* B. As. pt. xxi.

MOTACILLIDÆ.

Anthus aquaticus and *A. obscurus*, a series of specimens exhibited, and remarks on the seasonal changes to which the former is subject. G. D. Rowley, P. Z. S. 1869, p. 249; Zool. S. S. pp. 1682, 1683.

Anthus spinoletta (L.), its synonyms. Ld. Walden, Ibis, 1869, p. 213, note.

Anthus ricardi at Brighton. T. W. Wonfor, Zool. S. S. pp. 1513, 1683; G. D. Rowley, p. 1918. Its occurrence in Somersetshire (cf. Zool. Rec. ii. p. 115). G. F. Mathew, *tom. cit.* p. 1561.

Anthus rufescens, its occurrence at Brighton (Zool. Rec. ii. p. 115). T. W. Wonfor, *tom. cit.* p. 1918.

Anthus chloris, Licht., has occurred at Graham's Town, Cape Colony. E. L. Layard, Ibis, 1869, p. 368.

Anthus gouldi, Fraser, is distinct from *A. sordidus*, Rüpp., which last is distinct from *A. sordidus*, Blyth (ex India). H. B. Tristram, *tom. cit.* p. 437. [The Indian bird described as *Corydalla griseorufescens*, A. Hume. Ibis, 1870, p. 286.]

Anthus cervinus is figured. J. Gould, B. As. pt. xxi.

Budytes torquatus is the name provisionally (!) given to a supposed new species from Northern China, identified [by M. J. Verreaux?] with *Motacilla indica*, Gmel. A. David, N. Arch. Bull. iii. p. 33 and note.

Budytes calcaratus, Hodgs., its synonymy. Ld. Walden, Ibis, 1869, p. 214.

Budytes flava (L.) occurs in Alaska. W. H. Dall & H. M. Bannister, Trans. Chicago Ac. Sc. i. p. 277. American specimens described, and one figured. S. F. Baird, *tom. cit.* pp. 312, 313, pl. xxx. fig. 1.

TROGLODYTIDÆ.

Thryothorus nisorius is described and figured as a new species from Mexico, resembling *T. pleurostictus*, ScL. (Ibis, 1860, p. 30), but with the body beneath entirely barred. P. L. Sclater, P. Z. S. 1869, pp. 591, 592, pl. xlv.

Thryothorus superciliaris is described as a new species from Puna Island, in the Gulf of Guyaquil, resembling *T. modestus*, but is larger and has a longer bill, with a broader superciliary stripe, and the sides of the head and throat of a purer white. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, p. 235.

Troglodytes aedon, its breeding habits. M. S. Hill, Am. Nat. iii. p. 49.

Troglodytes alascensis is described and figured as a new species from St. George's Island, Behring's Sea. S. F. Baird, Trans. Chicago Ac. Sc. i. p. 315, pl. xxx. fig. 3. Note on its habits. W. H. Dall, *tom. cit.* p. 280.

CERTHIIDÆ.

Tichodroma muraria, further notes on it (cf. Zool. Rec. ii. p. 116). A. Gir-tanner, Zool. Garten, 1869, pp. 317-319.

Xenicus haasti is described as a new species from Otago, New Zealand, in structure approaching *X. longipes*, but with a hind claw more strongly developed, and exceeding the toe in length. W. Buller, Ibis, 1869, pp. 37, 38.

SITTIDÆ.

Sitella striata is a new species from Cape York, allied to *S. leucocephala*, but having a black head, or in the supposed female the crown at least. J. Gould, Ann. & Mag. N. H. 4th ser. iv. p. 110. Figured, Id. B. Austral. Suppl. pt. v.

MALURIDÆ.

Sphenæacus rufescens is a new species from one of the Chatham islands, larger than *S. punctatus*, more strongly built, and of handsomer plumage. W. Buller, Ibis, 1869, p. 38.

Obs. "The *Malurinæ* of North-eastern Africa." M. T. von Heuglin, Ibis, 1869, pp. 79-107, 129-143, pls. i.-iii. This paper is here included under "*Sylviidæ*," q. v.

TANAGRIDÆ.

Chlorophonia calophrys is figured. P. L. Sclater & O. Salvin, Ex. Orn. p. 135, pl. xlvii.

Euphonia chrysopasta is described and figured as a new species from Eastern Peru, not resembling any other known species very closely. *Iid.* P. Z. S. 1869, p. 438, pl. xxx. figs. 1, 2.

Calliste hannahæ (Zool. Rec. i. p. 83) is possibly identical with *C. cyanicollis* (Lafr. & D'Orb.). *Iid. tom. cit.* pp. 252, 253.

Calliste florida is described and figured as a new species from Costa Rica, much resembling *C. schranki*, but having a more slender bill, and wanting the black forehead and yellow breast. *Iid. tom. cit.* pp. 416, 417, pl. xxviii.

Buthraupis arcæi is described and figured as a new species from Veragua, one of the smallest of the group, and in coloration generally resembling the large *B. cucullata*; but, besides the difference in size, the head is of the same colour as the back, and the under surface of a deeper yellow. *Iid. tom. cit.* pp. 439, 440, pl. xxxi.

Pyranga:—Six uniformly red forms of this genus are minutely characterized, whereof one, *P. cooperi*, from the southern "Middle Province" of the United States and the Pacific slope of Mexico, is described as "a new species or variety." It is most nearly related to *P. æstiva*, but may be distinguished by its larger size, the bill especially being bigger and more swollen, and longer wing. Outlines of the bill in all the six forms are given. R. Ridgway, Proc. Ac. N. S. Philad. 1869, pp. 129-131.

Tachyphonus atricapillus is described as a new species from Trinidad, not resembling any other member of the genus. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), pp. 359, 360.

Tachyphonus chrysomelas is described and figured as a new species from Veragua, distinguished from all its relatives by its black and yellow colour, and is the smallest of the group. P. L. Sclater & O. Salvin, P. Z. S. 1869, p. 440.

Chlorospingus punctulatus is a new species from Veragua belonging to the group with a white postocular spot, but having a black head like *C. pileatus* (Zool. Rec. i. p. 84), which, however, has the under surface pale cinereous, with a yellowish pectoral band and flanks, and no throat-spots. *Iid. tom. cit.* p. 440.

Buarremon schistaceus (Boissonn.) occurred in Aberdeenshire in 1863! W. C. Angus, Proc. N. H. Soc. Glasgow, i. (1869) p. 207.

Saltator laticlavus is a new species from Peru, resembling *S. aurantirostris*, Lafr. & D'Orb., from La Plata (with which it has been confounded), but with a broad black neck-stripe, and the rectrices more narrowly tipped with white. P. L. Sclater & O. Salvin, P. Z. S. 1869, pp. 151, 152.

Pitylus humeralis (Zool. Rec. iv. p. 106) is figured and a diagnostic list

given of the four species of the section *Caryothraustes* to which it belongs. *Id.* Ex. Orn. pp. 167, 168, pl. lxxxiv.

PLOCEIDÆ.

"*Hyphantornis bojeri*, Hartl. & Finsch," is a new species from Mombas. J. Cabanis, Von der Decken's Reisen, iii. 1, p. 32. [Further diagnosed, O. Finsch & G. Hartlaub, *op. cit.* iv. p. 402 (1870). It is *Xanthophilus aureoflavus*, Reichenb. Singv. p. 84, fig. 312 (*nec* Smith).]

Hyphantornis atrigularis is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xix.

Textor intermedius is described and figured as a new species from East Africa, midway between the northern *T. alecto*, Temm., and the southern *T. erythrorhynchus*, Smith. J. Cabanis, J. f. O. 1868 (published in 1869), p. 413; *Id.* Von der Decken's Reisen, iii. 1, pp. 32, 33, pl. xi.

HORNE, C. Notes on *Ploceus baya* and its Nest. Proc. Zool. Soc. 1869, pp. 243-245, pl. xii.

The mode in which it collects materials for its nest and habit of building in society described. The plate shows a date-palm in which more than seventy nests were built. The mystery of the lump of clay found in each is not solved.

Ploceus megarhynchus is a new species from the Indian *terai*, closely resembling *P. baya*, but nearly double its weight, with a bill fully half as large again. A. Hume, Ibis, 1869, p. 356.

Calypanthia [sc. *Foudia*] *comorensis* is described and figured as a new species from Mayotte, differing from *F. algonde* (Zool. Rec. iii. p. 99; iv. p. 107) in its black bill, the greater extension of the red beneath, and the white-bordered wing-coverts. In the compressed form of its bill especially it agrees more with *F. eminentissima*, Bp., than with *F. madagascariensis* (L.). J. Cabanis, J. f. O. 1868 (published in 1869), p. 413; *Id.* Von der Decken's Reisen, iii. 1, pp. 31, 32.

Nigrita uropygialis and *N. emilia* [lege *æmilie*] are described and figured as new species from the Fantee country; the former is allied to *N. fusconota*, but is smaller, and has a pale ochreous rump and longer tail; the latter is allied to *N. cinereocapilla*, but is also smaller and has a pale ash-coloured instead of a white rump. R. B. Sharpe, Ibis, 1869, pp. 384, 385, pl. xi. figs. 1, 2.

Munia punctularia (L.), the determination of this and its allied species, about which there has been much confusion. Ld. Walden, *tom. cit.* p. 211, note.

FRINGILLIDÆ.

Cardinalis igneus (Zool. Rec. iii. p. 99) is referred to *C. virginianus*. D. G. Elliot, B. N. Am. Intr. p. 6.

Spermophila badiiventris (Zool. Rec. ii. pp. 118, 119) is figured. S. F. Baird, Trans. Chicago Ac. Sc. i. pl. xxviii. fig. 3.

Neorhynchus is the name given to the genus *Callirhynchus*, Lesson, which is preoccupied in Ichthyology, and the type *N. naseus*, as it is suggested that the original "*maseus*" of Bonaparte (C. R. xlii. p. 822) should be written, is figured, though on the plate the word is unhappily "*maseus*." P. L. Selater, P. Z. S. 1869, p. 147, pl. xii.

Poospiza caesar is described and figured as a new species from Peru, something like *P. thoracica*, but with distinct white superciliaries and no chestnut on the flanks. P. L. Sclater & O. Salvin, *tom. cit.* p. 152, pl. xiii.

Phrygilus gayi and *P. aldunatii* are carefully differentiated. *Ibid.* Ibis, 1869, pp. 285, 286.

Zonotrichia pileata may be the immature form of *Z. canicapilla*. *Ibid.* *tom. cit.* pp. 284, 285.

Zonotrichia albicollis, its occurrence near Aberdeen in 1867. W. C. Angus, Proc. N. H. Soc. Glasgow, i. (1869) pp. 209–211, pl. iii. Reprinted, Zool. S. S. pp. 1547–1549. [*Cf.* Ibis, 1870, p. 265.]

Zonotrichia melanotis (Zool. Rec. iv. p. 108) should be placed in the genus *Hæmophila*, and much resembles *H. ruficauda*, Bp., but differs in many respects, as it also does from *H. humeralis*, Cab., with which it had been thought to be possibly identical. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 362.

Melospiza insignis is described and figured as a new species, or at least a strongly marked race from Kadiak, allied to *M. melodia*, but apparently very distinct in its much larger size and darker colours, longer bill, and lack of spots or their confluence. S. F. Baird, Trans. Chicago Ac. Sc. i. p. 319; W. H. Dall, *tom. cit.* p. 285.

Pyrgisoma:—The five known species are enumerated, and *P. cabinisi* (Zool. Rec. v. p. 91) and *P. kieneri* are figured. P. L. Sclater & O. Salvin, *Ex. Orn.* pp. 129, 130, pl. lxx.

Crithagra flavivertex is a new species from Abyssinia. W. T. Blanford, Ann. & Mag. N. H. 4th ser. iv. p. 330. [Allied to *C. butyracea* (L.) and *C. canicollis*, Swains., but differing from the first by the yellow forehead being broader and gradually passing to olivaceous on the crown; and from the second by the back and sides of the neck being olive and the forehead and under parts being brighter. It is greener, larger, and with a less conical bill than *Serinus aurifrons* (Zool. Rec. i. p. 85), and has a smaller bill and wings, and is more yellow than *C. chloropsis*, Cab. *Id.* Geol. & Zool. Abyss. (1870), p. 414, pl. vii.]

Crithagra imberbis is described and figured as a new species, probably from Zanzibar, smaller than *C. butyracea*, but with a bill as strong, and characterized by the want of any dark markings on the head. J. Cabanis. J. f. O. 1868 [published in 1869], p. 412 and note; *Id.* Von der Decken's Reisen, iii. 1, p. 30, pl. ix. [Originally described as *C. chloropsis*; but that name being occupied by a species of Bonaparte's, it was changed for that given above.]

Xanthodira flavigula, Sundev., has occurred near Graham's Town, Cape Colony. E. L. Layard, Ibis, 1869, p. 371.

Coccothraustes vulgaris has occurred in India. A. Hume, *tom. cit.* p. 456.

Ligurinus chloris (cum nid. & pull.) is figured. J. Gould, B. Gr. Br. pt. xv.

Leucosticte littoralis is described and figured as a new species from British Columbia and Alaska, much resembling *L. griseinucha* (for which it seems to have been figured, Elliot, B. N. Am. i. pl. 11), but considerably smaller; its colours, too, are brighter and lighter, the bill shorter and more conical, the dark patch on the head more restricted, the chin more ash-coloured, and the rose-colour of the head less forward. From *L. tephrocotis* it is distinguished by the extension of the ash-colour below the eyes, and from *L. campestris* by having the ear-coverts ash-coloured and more grey on the chin.

S. F. Baird, Trans. Chicago Ac. Sc. i. p. 318, pl. xxviii. fig. 1; W. H. Dall, *tom. cit.* p. 283.

Leucosticte griseinucha (Brandt) occurs on the Aleutian Islands. W. H. Dall, *loc. cit.* Figured, S. F. Baird, *tom. cit.* pl. xxviii. fig. 2.

Pyrrhula rosea said to have occurred at Brighton. G. D. Rowley, Zool. S. S. p. 1918.

Pyrrhula coccinea, var. *cassini*, is described and figured as a variety from Alaska, agreeing in size and proportions with *P. coccinea*, De Selys, but being beneath of a light cinnamon-grey, and having a white patch on the tail. It has perhaps the closest relationship with *P. griseiventris*, Lafresn.; but that has the cheeks and throat red. S. F. Baird, Trans. Chicago Ac. Sc. i. p. 316; pl. xxix. fig. 1. Note on it, W. H. Dall, *tom. cit.* p. 281. [Judging from the description and figure, this appears to us to be undoubtedly a good species. It singularly resembles *P. murina*, Godm. (Zool. Rec. iii. p. 99.)]

Loxia curvirostra, its extraordinary abundance in Germany in the summer of 1866. H. Schacht, Zool. Garten, 1869, pp. 31, 32. Its occurrence on Bear Island! A. J. Malmgren, Ibis, 1869, p. 230.

Loxia taniptera, notes on its food. K. Müller, J. f. O. 1869, pp. 105, 106.

EMBERIZIDÆ.

Crithophaga miliaria is figured. J. Gould, B. Gr. Br. pt. xvi.

Emberiza pityornis near Vienna. V. von Tchusi, J. f. O. 1869, pp. 142, 217-220.

Emberiza passerina (Zool. Rec. iv. p. 109), its repeated occurrence in France. J. Vian, R. Z. 1869, p. 97.

Emberiza alleonis is described as a new species from Dauuria. It is *E. schœnichus*, var. β , Pall. (Z. R.-A. ii. p. 48). *Id. tom. cit.* pp. 97-105. Probably identical with *Cynchramus pallasi*, Cab. (Maa. Hein. i. p. 130). L. Olphe-Galliard, *tom. cit.* pp. 180, 181.

Emberiza rustica and *E. melanocephala* said to have occurred near Brighton. J. Gould, Ibis, 1869, p. 128.

Emberiza rustica, *E. fucata*, and *Glycyspina huttoni* are figured. *Id.* B. As. pt. xxi.

Emberiza citrinella, on the variation of the song in this species. A. Röse, Zool. Garten, 1869, pp. 19-28, 378-380; J. J. Oppel, *tom. cit.* pp. 280-286. (Cf. G. Brucklacher, *tom. cit.* pp. 88, 89.)

ALAUDIDÆ.

Megalophonus anderssoni is described as a new species from Damaraland and Abyssinia, nearly allied to *M. cinereus* (Vieill.) in coloration; but the rufous is continuous and not interrupted, and the spots of brownish-black on each side of the neck are very distinct. To this species (with which *Alauda spleniata*, Strickl., *A. ruficapilla*, A. Smith, and *A. ruficeps*, Rüpp., are said to be identical) it bears the same relation as *M. africanoides* does to *M. africanus*, and *M. chermanus* to *M. sabota*. H. B. Tristram, Ibis, 1869, pp. 434, 435.

Alauda prætermessa is described as a new species from Abyssinia. W. T. Blanford, Ann. & Mag. Nat. Hist. 4th ser. iv. p. 330. [Resembles *A. arvensis*, but has a stronger bill and shorter wings; is also allied to *A. erythropygia*, Strickl., but is smaller, and the rufous of the rectrices differently distributed. *Id.* Geol. & Zool. Abyss. (1870), pp. 388, 389, pl. vi.]

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Alauda calandra said to have again occurred in England. J. H. Gurney, Jun., Zool. S. S. p. 1599.

Alauda arvensis (cum nid. & pull.) and *Calandrella brachydactyla* are figured. J. Gould, B. Gr. Br. pt. xv.

Alauda arborea is figured. *Id. op. cit.* pt. xvi.

Alauda pispoletta (Pall.), its synonymy. *Ld. Walden*, Ibis, 1869, p. 213, note.

Galerita macrorhyncha, Tristr. (Ibis, 1859, p. 57), occurs in Morocco. C. F. Tyrwhitt Drake, Ibis, 1869, p. 153.

Alamon jessii is proposed as the name of a new species from Abyssinia, to be described in the Zoological 'Transactions'! O. Finsch, P. Z. S. 1869, p. 430.

ICTERIDÆ.

Cassicus icteronotus, notes on, from the Spanish of Dr. Castro. O. Fauvel, Bull. Soc. Linn. Norm. 1868, pp. 155-161.

Icterus abeillei is figured, and a diagnostic list given of the three species of the section *Hyphantes*, to which it belongs. P. L. Sclater & O. Salvin, Ex. Orn. pp. 187, 188, pl. xciv.

Icterus auratus, Bp., and allied species, notes on. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 271-273.

Molobrus [vulgo *Molothrus*] *sericeus* (Licht.), notes on its mode of breeding. C. Sternberg, with additional remarks by J. Cabanis, J. f. O. 1869, pp. 125-136. [See "OOLOGY."]

Molothrus pecoris, its habits. T. M. Trippe, Am. Nat. iii. pp. 291-294; H. S. Kedney, *tom. cit.* p. 550.

Quiscalus fortirostris is described as a new species from Barbadoes, nearest to *Q. lugubris*, Swains, in size, but rather smaller, with a bill wider and fully one-third higher at the base, a less violet gloss, and shorter and more slender legs. G. N. Lawrence, Proc. Ac. N. S. Philad. 1868 (not published till 1869), p. 360.

Quiscalus:—The smaller species of the United States, 3 in number, are minutely characterized, and outline figures of their wing and bill given. R. Ridgway, *op. cit.* 1869, pp. 133-135.

STURNIDÆ.

Sturnus vulgaris, on its faculty of thought. A. Baron Hoyningen-Huene, J. f. O. 1869, pp. 255, 256.

Gracula kreffti is described and figured as a new species from the Solomon Islands, very like *G. dumonti*, but much larger, with a longer tail and no yellow on the middle of the belly. P. L. Sclater, P. Z. S. 1869, pp. 120, 121, pl. ix.

Ptilonorhynchus [lege *Ptilorhynchus*] *racenleyi* (Zool. Rec. iv. p. 111) is figured. J. Gould, B. Austral. Suppl. pt. v.

Lamprotornis amethystina, Heugl. (J. f. O. 1863, p. 20, 1864, p. 257) is referred to *Lamprocolius*, and is regarded as a conspecific of *L. auratus* (Gmel.), under the name of *L. auratus orientalis*. M. T. v. Heuglin, J. f. O. 1869, p. 7.

EPIMACHIDÆ.

Notes on the species of this family found in the Malay archipelago. A. R. Wallace, Mal. Archip. ii. pp. 411-420, figs.

PARADISEIDÆ.

Notes on all the species of this family. A. R. Wallace, Mal. Archip. ii. pp. 387-426, *et alibi*, figs.

CORVIDÆ.

Corvus splendens does not occur in the Neilgiria, as previously stated (P. Z. S. 1866, p. 568). G. E. Bulger, P. Z. S. 1869, p. 603.

Psilorhinus morio (Wagl.) and *P. mexicanus* (Rüpp.) are probably distinct, and their characters pointed out. P. L. Sclater & O. Salvin, *tom. cit.* p. 363.

Nucifraga caryocatactes in East Prussia. A. Kuwert, J. f. O. 1868, pp. 405, 410 (not published till 1869). In France, L. Olphe-Galliard, *op. cit.* 1869, p. 142. Breeding in Lower Austria, V. von Tschusi, *tom. cit.* pp. 239, 240.

COLUMBÆ.

COLUMBIDÆ.

Columba risoria, its fecundity. C. Stölker, J. f. O. 1869, pp. 339, 340.

Columba calcaria and *C. palumbus*, their fossil remains figured. A Milne-Edwards, Ois. Foss. Fr. pl. cxli. figs. 10-24.

Funigius madagascariensis, notes on. P. Aquarone, Bull. Soc. Imp. d'Acclim. 1869, pp. 361-363.

Zenaidura yucatanensis is described as a new species from Northern Yucatan, above resembling *Z. carolinensis*, but beneath uniform, with none of the pale ochreous on the abdomen and under tail-coverts; the auricular spot is dark blue, and there is no tinge of gold on the neck; the middle rectrices retain their width to the end, and are of the same colour as the back; the secondaries are conspicuously white. G. N. Lawrence, Ann. Lyc. N. H. New York, 1869, pp. 208, 209.

DIDIDÆ.

NEWTON, ALFRED and EDWARD. On the Osteology of the Solitaire or Didine Bird of the Island of Rodriguez, *Pezophaps solitaria* (Gmel.). Phil. Trans. 1869, pp. 327-362, pls. xv.-xxiv.

The abstract of this paper was noticed last year (Zool. Rec. v. pp. 98, 99). It is now published in full, and illustrated by ten plates, beautifully executed by Mr. Ford. A postscript is added, containing an extract from Pingré's MS. journal, showing that the species possibly existed so late as the year 1761.

NEWTON, EDWARD. Discovery of the Remains of *Didus solitarius* at Rodriguez. Trans. Roy. Soc. Arts & Sc. Mauritius, N.S. iii. pp. 31-38 (read 22 Nov. 1866).

Didus ineptus and *Pezophaps solitaria*, skeletons exhibited. J. W. Clark, P. Z. S. 1869, p. 473.

Didus ineptus, remarks on this and other short-winged birds from the

Mascarene Islands. J. Reinhardt, Overs. K. danske Vidensk. Selsk. Forhandl. 6 Nov. 1868, p. 158. [No particulars published.]

GALLINÆ.

CRACIDÆ.

Ortalia frontisi is described as a new species from Costa Rica, brownish-olivaceous above, paler on the breast, the head and upper part of the neck olive slate-colour, the whole abdomen olivaceous-grey, the lower part of the belly whitish, the primaries entirely and the secondaries internally rufous. It may, however, be identical with *O. cinereiceps*, Gray (Zool. Rec. iv. pp. 114, 115). J. Cabanis, J. f. O. 1869, pp. 211, 212.

Craz alberti and *Gallus domesticus*, hybrids between. P. Aquarone, Bull. Soc. Imp. d'Acclimat. 1869, pp. 357-360.

PHASIANIDÆ.

Gallus, sp. P, its fossil remains figured. A. Milne-Edwards, Ois. Foss. Fr. pl. cxxxiv. figs. 19-21.

Thaumalea amherstii very common in Western Yunan. J. Anderson, P. Z. S. 1869, pp. 111, 278. In confinement, J. J. Stone & P. L. Sclater, tom. cit. p. 468.

Thaumalea picta and *Euplocamus nycthemerus*, a supposed hybrid between these species exhibited. G. F. Westermann, tom. cit. p. 149.

Phasianus colchicus naturalized in England prior to A.D. 1059. W. Boyd Dawkins, Ibis, 1869, p. 358. Figured, C. J. Sundevall, Sv. Fogl. pl. lxxiv. fig. 2.

Phasianus colchicus, *P. reevesi*, *Cerionis temmincki*, and *Pucrasia xanthopyla* (Zool. Rec. i. p. 88) are figured. J. Gould, B. As. pt. xxi.

Meleagris gallopavo, senses of sight and smell in. J. D. Caton, Am. Nat. iii. pp. 28, 30.

Gallopavo domesticus, *Pavo cristatus*, and *Numida meleagris* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxiv.

"*Numida eduardi*, J. Verr.," was described as a new species from Natal. G. Hartlaub, J. f. O. 1867, pp. 36, 37. [With this *N. verreauxi*, Elliot (Ibis, 1870, p. 300), is identified. *Id.* Ibis, 1870, p. 443.]

Numida coronata, its breeding in France. J. Cornelly van Heemstra, Bull. Soc. Imp. d'Acclimat. 1869, pp. 404-407.

TETRAONIDÆ.

Pternistes infuscatus is described and figured as a new species from Lake Jipe, in the interior of East Africa, darker than *P. rubricollis*, Rüpp., and differing therefrom in the coloration of the upper, and especially of the lower tail-coverts, which are blackish-brown, broadly bordered with white towards the extremity. J. Cabanis, J. f. O. 1868 [published in 1869], p. 413; *Id.* Von der Decken's Reisen, iii. l. p. 44, pl. xiv.

Francolinus schlegelii is figured. M. T. v. Heuglin, Orn. Nordost-Afr. t. xxx.

Ortyx virginianus, notes on. A. Fowler, Am. Nat. iii. pp. 535-539.

Lophortyx californianus, its breeding in France. A. Geoffroy St.-Hilaire, Bull. Soc. Imp. d'Acclimat. 1869, pp. 509-514.

Palaeortyx hoffmanni, *P. blanchardi*, *P. gallica*, *P. brevipes*, *P. phasianoides*, *P. longipes*, *P. pisca* [qu. *prisca*?], *P. sansaniensis*, *P. medius*, *P. altus* and *P. desnoyersi*, *Taoperdix pessietii*, *Tetrao albus*, *T. lagopus* and *T. urogallus*, *Perdix grisea* [sc. *cinerea*], and *Coturnix communis*, their fossil remains figured. A. Milne-Edwards, Ois. Foss. Fr. pls. cxxiv.-cxxxiii., cxxxiv. figs. 1-18, 22-26.

Tetrao tetrix, domestication of. C. Bouchard, Bull. Soc. Imp. d'Acclimat. 1869, pp. 592, 593.

Bonasa umbellus, note on its "drumming." R. Raymond, Am. Nat. iii. p. 105.

Lagopus subalpina [sc. *albus*], observations on. G. R. Barth, J. f. O. 1869, pp. 87-92.

PTEROCLIDÆ.

Pterocles decoratus is described and figured as a new species from Lake Jipe, in the interior of East Africa, distinguishable at once by the markings of its head—the forehead, region round the bill, spot behind the eyes, and throat being black, with a spot on the middle of the forehead, a border to the black of the front of the head, and a superciliary streak white. J. Cabanis, J. f. O. 1868 (published in 1869), p. 413; *Id.* Von der Decken's Reisen, iii. 1, p. 43, pl. xiii.

Pterocles sepultus, its fossil remains figured. A. Milne-Edwards, Ois. Foss. Fr. pl. cxli. figs. 1-9.

Syrhaptes paradoxus. In July 1863 two were shot on Sandsjö, near Filipstad; and 10th November three were seen at Gräsgård, in Öland, of which one was shot. W. Meves, Öfvers. K. Vet.-Ak. Förhandl. 1868, p. 272. In East Friesland. F. von Droste, J. f. O. 1868, p. 406. At Felin, in Livonia, in 1863. H. Göbel, *op. cit.* 1869, p. 194. In Gothland, in 1863 (*cf.* Ibis, 1864, p. 192). L. Holtz, *tom. cit.* p. 256. In Sicily. H. Saunders, Ibis, 1869, p. 397. In North Germany. B. Borggreve, Vogel-Faun. Norddeutshl. p. 146. Abstract of its invasions of Europe [several particulars incorrect]. E. Newman, Zool. S. S. pp. 1794, 1795; Baron Droste, Vogelw. Borkum, pp. 123-133, 389. In confinement. Ld. Binning, Proc. N. H. Soc. Glasgow, i. p. 161.

TURNICIDÆ.

Turnix dussumieri is figured. J. Gould, B. As. pt. xxi.

MEGAPODIIDÆ.

Megapodius brazieri is the name proposed for a species found in Banks's Island, whence an egg has been sent by Mr. Brazier. P. L. Sclater, P. Z. S. 1869, pp. 528, 529.

Megapodius — (an *sp. nov.*?) is found in Nuipo, Friendly Islands. F. W. Hutton, Ibis, 1869, p. 353.

TINAMIDÆ.

Crypturus modestus is a new species from Costa Rica, of small size, coming near *C. meserythrus*, Sclat., dull brown above, brighter on the rump, paler on the breast, and the crown dusky, eyebrows cineraceous, throat white, abdomen brownish-grey tinged with tawny in the middle, lower part of the belly ash-coloured, and under tail-coverts fulvous spotted with dusky. J. Cabanis, J. f. O. 1869, p. 212.

GRALLÆ.

RALLIDÆ.

MILNE-EDWARDS, ALPHONSE. Observations sur les affinités zoologiques de *Aphanapteryx* espèce éteinte qui vivait encore à l'île Maurice au XVII^e siècle. Ann. Sc. Nat. 5e sér. x. pp. 325-346, pls. 15-18.

— Researches into the Zoological Affinities of . . . *Aphanapteryx imperialis*. Ibis, 1869, pp. 256-275, pl. vii.

These are two distinct papers, though, being written about the same time and with the same materials, their similarity is at first sight obvious, and the plate is the same in both, after the *facsimile* in Ritter von Frauenfeld's work (Zool. Rec. v. p. 103); but the second contains woodcuts, from Strickland's 'Dodo and its Kindred,' of Van den Broecke's and Herbert's figures of the bird. By means of the bones found in Mauritius by Mr. Edward Newton, as before mentioned (*loc. cit.*), the author most satisfactorily makes out the affinities of this extinct form, which, he says, should bear the name of *A. broeckii* (Schlegel), and holds the place by the side of *Ocydromus* which that does to the more normal *Rallidæ*. The whole investigation is, as might be expected, most ably conducted. In each paper the bones are figured.

FRAUENFELD, GEORG Ritter von. Ueber den Artnamen von *Aphanapteryx*. Verhandl. k.-k. zool.-bot. Gesellsch. Wien, 1869, pp. 761-764.

The author objects to the substitution (*ut supra*) of the name *A. broeckii* for *A. imperialis*.

Ocydromus lafresnayanus (J. Verr. & Des Murs, R. Z. 1860, p. 437) in confinement. P. L. Sclater, P. Z. S. 1869, p. 431.

Ocydromus sylvestris is described and figured as a new species from Lord Howe's Island, readily distinguishable from *O. australis* and *O. earlii* by its small size and rufous wings, which are narrowly banded with black. The second character also separates it from *O. lafresnayanus*. *Id. tom. cit.* pp. 472, 473, pl. xxxv. Its habits described: G. Bennett, *tom. cit.* pp. 471, 472.

Ocydromus australis is attracted by red cloth, in the manner spoken of by old writers with regard to *Aphanapteryx*. J. H. Gurney, Ibis, 1869, p. 463.

Ocydromus nigricans is described as a new species from the south-west coast of the South Island of New Zealand. W. Buller, Trans. & Proc. New Zeal. Inst. i. p. 111.

Gypsornis cuvieri (gen. et sp. nov.), *Rallus intermedius*, *R. christii*, *R. eximius*, *R. porzanoides*, *R. beaumonti*, *R. dispar*, and *R. major* (spp. novv.) (Zool. Rec. v. p. 104), their remains fully described. A. Milne-Edwards, Ois. Foss. Fr. ii. pp. 140-158.

Rallus crex (?), its femur from a "quaternary" bed described, and the remains of *Gallinula chloropus* and *Fulica atra* from similar deposits figured. *Id. tom. cit.* pp. 158-160, pl. cvi. figs. 1-19.

Rallus intactus is a new species from the Solomon Islands, nearly allied to *R. plumbeiventris*, G. R. Gray (P. Z. S. 1861, p. 432), but with a shorter bill,

darker rufous head and breast, and paler lead-colour belly. P. L. Sclater, P. Z. S. 1869, p. 123.

Rallus forsteri, Hartl. (Arch. f. Naturgesch. 1852, p. 136), is a variety of *R. pectoralis*, Less. O. Finsch & G. Hartlaub, *tom. cit.* pp. 544, 548.

Thyrorkhina schomburgki (Zool. Rec. v. p. 105), *Porzana castaneiceps*, *Rallus antarcticus*, and *R. semiplumbeus* are figured, and a diagnostic list given of the three American species of the last-named genus. P. L. Sclater & O. Salvin, Ex. Orn. pp. 133, 134, 155, 163-166, pls. lxxvii., lxxviii., lxxxii., lxxxiii.

Gallinula ruficrissa is a new species from Queensland allied to *G. olivacea*, Meyen (Nov. Act. 1834, p. 109, pl. 20), but smaller, and with legs not so disproportionate. *G. phœnicura* and *G. akool* are also allied species. J. Gould, Ann. & Mag. N. H. 4th ser. iv. pp. 110, 111. Figured, as is also *Rallina tricolor*. Id. B. Austr. Suppl. pt. v.

Gallinula pusilla is figured. C. J. Sundevall, Sv. Fogl. lxxvi. fig. 5.

Porphyrio alba now extinct. G. Bennett, P. Z. S. 1869, p. 471.

SCOLOPACIDÆ.

Scolopax rusticula, a singular variety. E. Ward, P. Z. S. 1869, p. 473.

Scolopax sumatrana, Raffles (Trans. Linn. Soc. xiii. p. 327), is *Terekia cinerea*. G. Hartlaub, *tom. cit.* p. 436.

Gallinago imperialis is a new species from New Granada, somewhat resembling *Scolopax saturata* in general appearance, but wanting the white tip of the rectrices and the cross bands of the head. Its nearest structural allies are *G. stricklandi* and *G. jamesoni*. P. L. Sclater & O. Salvin, *tom. cit.* pp. 419, 420. Figured with *G. nobilis*, and a list given of the eight South-American species of the genus, showing their synonymy and distribution. Id. Ex. Orn. pp. 193-196, pls. xcvi., xcvi.

Scolopax wilsoni perching on trees (*cf.* Zool. Rec. v. p. 105). W. W. Castle, Am. Nat. ii. p. 663; G. A. Boardman, *op. cit.* iii. p. 222.

Scolopax sabinii (Zool. Rec. v. p. 105), one of its parasites identical with that of *S. gallinago*. J. H. Gurney, Jun., Zool. S. S. pp. 1562, 1563. Its occurrence (twice) in Hampshire. W. Hart, *tom. cit.* pp. 1722, 1917.

Gallinago pusilla is described as a new species from one of the Chatham Islands. W. Buller, Ibis, 1869, p. 41.

HARTING, J. E. On rare or little-known *Limicolæ*. Ibis, 1869, pp. 426-434, pl. xii.

Eurynorhynchus pygmaeus is the subject of this paper, and a very full account is given of all that is known concerning it. Its affinities are certainly with *Tringa*, and it should probably be placed between *Ereunetes petrificatus* and *T. subarquata*. The breeding-plumage of the species is for the first time figured from Mr. Barrow's specimen (P. Z. S. 1869, p. 201).

Tringa wilsoni, its occurrence in England. E. H. Rodd, Zool. S. S. p. 1920 [*cf. op. cit.* p. 2025].

Arquatella maritima is figured. J. Gould, B. Gr. Br. pt. xv.

Calidris arenaria and *Phalaropus fulicarius* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxvi. figs. 3, 4.

Machetes pugnar., a ♂ kept in captivity for four years at each moult assumed a similarly coloured habit. C. Blümel, J. f. O. 1869, p. 67.

Numenius arquata, notes on, with a diagnostic list of all species of the genus. Baron Droste, Ber. XVIII. Versamml. D. O. G. pp. 28-35. [*cf.* Ibis, 1870, p. 130.] Figured (*cum pull.*). J. Gould, B. Gr. Br. pt. xv.

Limosa uropygialis, Gould, is very common at the mouth of the Yukon and further northward. W. H. Dall, Trans. Chicago Ac. Sc. i. p. 293. American specimens described and figured. S. F. Baird, *tom. cit.* p. 320, pl. xxxii.

Glottis canescens is figured. J. Gould, B. Gr. Br. pt. xv.

Actiturus bartramius, its occurrence at Malta. C. A. Wright, *Ibis*, 1869, pp. 247, 248.

CHARADRIIDÆ.

Hoplopterus spinosus, its occurrence at Malta. C. A. Wright, *Ibis*, 1869, pp. 246, 247.

Lobivanellus goensis breeds on housetops. C. Horne, *tom. cit.* pp. 454-456.

HARTING, J. E. On rare or little-known *Limicolæ*. *Ibis*, 1869, pp. 304-310, pl. viii.

This paper treats of *Anarhynchus frontalis* in a very admirable manner, giving a full account of all that was known of this singular form, which the author seems inclined to regard as related to *Strepsilas*, and as having probably its nearest ally in *Thinornis*. The diverted bill he shows to be a constant character. The species is well figured.

Anarhynchus frontalis, specimens exhibited. *Id.* P. Z. S. 1869, p. 360. Remarks on, taking on the whole much the same view of its affinities as does Mr. Harting (*ut supra*). G. Hartlaub, *tom. cit.* pp. 433-438. Further note on; its affinities are with *Strepsilas* and *Charadrius* [*Ægialitis*]. W. Jardine, *Ibis*, 1869, pp. 461, 462.

Strepsilas interpres (*cf.* Zool. Rec. ii. p. 66) has been obtained in Spitsbergen. A. J. Malmgren, *tom. cit.* p. 230.

Chionis alba, notes on it, with figures and a short account of its digestive organs. R. O. Cunningham, *Journ. Anat. & Physiol.* Nov. 1869, pp. 87-89, pl. vii.

Edicnemus vermiculatus is described and figured as a new species from Lake Jipe, in East Africa, resembling *Æ. senegalensis*, but smaller, with a blackish bill, some dark brown zigzag markings above beside the blackish shaft-streaks, and a white longitudinal streak under the blackish upper edge, of the wing, which does not appear at all in *Æ. crepitans*. J. Cabanis, *J. f. O.* 1868 (published in 1869), pp. 413, 414; *Id.* Von der Decken's Reisen, iii. 1. p. 46, t. xvi.

Edicnemus crepitans (ad. & pull.) is figured. J. Gould, B. Gr. Br. pt. xv.

Edicnemus bistriatus in confinement. P. L. Selater, P. Z. S. 1869, p. 430.

Glareola pratincola shot in Norfolk. H. Stevenson, Zool. S. S. p. 1492.

Glareola lactea is figured. J. Gould, B. As. pt. xxi.

Cursorius gallicus ♀ killed [in Württemberg?] in September 1868 by the writer.—Rapp, Zool. Garten, 1869, pp. 157, 158. The same occurrence, with the [erroneous?] date "8 October" given. M. T. v. Heuglin, *J. f. O.* 1869, p. 256. [*Cf.* Zool. Rec. v. p. 106.]

Attagis chimborazensis is figured. P. L. Selater & O. Salvin, *Ex. Orn.* p. 157, pl. lxxix.

LEGGE, W. VINCENT. Notes on the Habits of *Pedionomus torquatus*. *Proc. Zool. Soc.* 1869, pp. 236-238.

From its carriage and egg (the latter only *ex ovario*, however) it seems to the author possible that this remarkable form is rather one of the *Grallæ* than of the *Gallinæ*, though its mode of flight is entirely peculiar. The egg

described does not seem to resemble that mentioned by Mr. Gould (Handb. B. Austral. ii. p. 189)*.

OTIDIDÆ.

Otis tarda, the aperture and sphincter of its gular pouch (cf. Zool. Rec. v. p. 106) figured and elaborately described. J. Murie, P. Z. S. 1869, pp. 140-142. [See "ANATOMY."] Its parasites (cf. Zool. Rec. v. pp. 552, 553). H. Krabbe, Ann. & Mag. Nat. Hist. 4th ser. iv. pp. 47-51, pl. iii. Occurs in Morocco. O. F. Tyrwhitt Drake, Ibis, 1869, pp. 151, 154.

Otis tetrax and *O. houbara* are figured. C. J. Sundevall, Sv. Fogl. pl. lxxv. figs. 1-3.

Otis (Lissotis) maculipennis is described and figured as a new species from East Africa, differing from *O. melanogastra* by its longitudinally streaked neck, with the middle of the feathers pale, blackish-brown at their sides, the back variegated, the tips of the feathers pale, with a black v-shaped pale mark, the wings black, most of them having white transverse spots on the inner or both webs. J. Cabanis, J. f. O. 1868 (published in 1869), p. 413; *Id.* Von der Decken's Reisen, iii. 1. p. 45, t. xv.

GRUIDÆ.

Grus cinerea, its migration in Southern Russia (Kiev). H. Göbel, J. f. O. 1869, pp. 193, 194. Occurred several times in Great Britain during 1869. H. L. Saxby, Zool. S. S. pp. 1763, 1764; J. H. Gurney, Jun., W. Hart, H. Stevenson and H. Nicholls, jun., *tom. cit.* pp. 1803, 1841, 1842, 1866.

ARDEIDÆ.

Ardea perplexa (sp. nov.) (Zool. Rec. v. p. 107) described from a fragmentary humerus. A. Milne-Edwards, Ois. Foss. Fr. ii. pp. 108, 190.

Ardea (Herodias) procerula is described as a new species from East Africa, much like *A. garzetta*, but larger. J. Cabanis, J. f. O. 1868 (published in 1869), p. 414; *Id.* Von der Decken's Reisen, iii. 1. pp. 48, 49.

Ardea (Herodias) cineracea is described and figured as a new species from East Africa, of a paler grey than *A. schistacea*, but, like that, with a white chin; the bill, however, is more slender and nearly black, and all the proportions are less. *Id.* *tom. cit.* pp. 414 et 49, 50, t. xvii.

Ardea novæ-hollandiæ occurs in New Zealand. W. Buller, Trans. & Proc. New Zeal. Inst. i. p. 110.

Ardea purpurea, *Butorides javanicus*, and *Nycticorax griseus*, notes on their nidification in India. A. Hume, Ibis, 1869, p. 238.

Butorides atricapilla (Afzel.), from the Cape, is said to be inseparable from *B. javanica* (Horsf.). H. B. Tristram, *tom. cit.* pp. 437, 438. [The contrary opinion adopted, Ibis, 1870, p. 151.]

Ardea minuta and *A. nycticorax* are figured. C. J. Sundevall, Sv. Fogl. pls. lxxvi. figs. 1, 2, lxxv. figs. 4, 5.

* Though on a former occasion (Zool. Rec. iv. p. 116) we placed this genus among the *Turnicidæ*, we have now little doubt, after (through the kindness of Prof. Flower) inspecting its osteology in the Museum of the College of Surgeons, that it really belongs to the *Limicolæ*. Its sternal apparatus has a great resemblance to that of *Attagis*; and it is possible that both these forms, with perhaps some others, should be separated as a distinct family.

Nycticorax leuconotus (Wagl.) is figured. J. Cabanis, Von der Decken's Reisen, iii. l. t. xviii.

Botaurus pinnatus and *Tigrisoma fasciatum* (ad. & imm.) are figured, and a diagnostic list of the three species of the last-named genus given. P. L. Sclater & O. Salvin, Ex. Orn. pp. 181-184, pls. xci., xcii.

Botaurus stellaris breeding in Norfolk (Zool. Rec. v. p. 107). H. Stevenson, Zool. S. S. p. 1491.

Botaurus lentiginosus, its occurrence in Ireland. Ld. Clermont, Zool. S. S. p. 1517.

Botaurus — ? , a species new to New Zealand, is mentioned as occurring there, but no name is applied to it. W. Buller, Trans. & Proc. New Zeal. Inst. i. pp. 110, 112.

ENDICOTT, W. E. Bitterns. American Naturalist, iii. pp. 169-179.

A popular account of the various species of *Botaurus* and its allies.

Botaurus capensis only differs from *B. stellaris* in size. J. H. Gurney, Ibis, 1869, p. 301.

CICONIIDÆ.

Ciconia abdimii in confinement. P. L. Sclater, P. Z. S. 1869, p. 468.

ANSERES.

PHÆNICOPTERIDÆ.

GRAY, G. R. Notes on the Bills of the species of Flamingo (*Phænicopterus*). Ibis, 1869, pp. 438-443, pls. xiii.-xv.

From a consideration of this feature, the author comes to the conclusion that there exist 8 good species, which he groups in four sections :—(a) *Phænicopterus* proper, with *P. antiquorum*, *P. erythreus*, *P. glyphorhynchus* (sp. nov.), and *P. ignipalliatius*; (b) *Phæniconaias*, with *P. rubidus* and *P. minor*; (c) *Phænicorodias* (nom. nov.); and (d) *Phænicoparrus*, formed by *P. ruber* and *P. andinus* respectively. The synonyms and localities of each of them are concisely given, and the bill figured.

Phænicopterus glyphorhynchus is said to be a new species from the Galapagos, having the bill somewhat slender, its culmen transversely grooved at the base, and the naked space beneath the basal arch of the mandible large, with the apex of the lateral arch angulated. No description is given; but the bill is figured. *Id. tom. cit.* pp. 439, 442, pl. xiv. fig. 5.

Phænicopterus rubidus (Zool. Rec. v. p. 107) probably identical with *P. minor*, Vieill. T. C. Jerdon, Ibis, 1869, pp. 230-232; A. Hume, *tom. cit.* pp. 355, 356. Distinct from *P. minor*: G. R. Gray, *loc. cit.* note, and its bill figured with that of *P. minor*, *tom. cit.* pp. 440, 442, pl. xiii. fig. 3, pl. xv. fig. 8.

Phænicopterus ejects from its mouth a bloody secretion, a habit which may possibly be the origin of the well-known legend of the Pelican feeding its young with its own blood. A. D. Bartlett, P. Z. S. 1869, p. 146.

ANATIDÆ.

EYTON, T. C. A Synopsis on [*sic*] the *Anatidæ*, or Duck tribe. Wellington, Salop: 1869. Small 8vo, pp. 144.

Announced by the author as a second edition of his 'Monograph of the *Anatide*' (published in 4to, with plates, 1838), with additions bringing his "knowledge of that family down to the present time," and printed in the present form for the use of travellers and students; it, however, gives a very poor idea of the knowledge now possessed by most ornithologists of this family, and we would fain let its deficiencies pass in silence. The author has been most unfortunate in his printer, and we have seldom of late years seen a work of scientific pretension brought out with so many errors.

MALMGREN, A. J. Anteckningar om Finlands och Skandinaviska halföns *Anseride*. Notis. Sällsk. pro Faun. et Flor. fennica förhandl. 1869, pp. 389-401.

Of *Anser* proper 5 species are included, and of *Bernicla* 3, very full bibliographical references being given. [Cf. Ibis, 1870, p. 132.]

Cereopsis novæ-hollandiæ, *Dendrocygna arcuata*, *Biziura lobata* (♂ & ♀), and *Eristamora australis*, their skeletons figured, with the osteological plates from the 'Monograph of the *Anatide*.' J. C. Eyton, Suppl. Osteol. Av. [See "ANATOMY."]

Chen caerulescens is figured. D. G. Elliot, B. N. Am. pts. xiv., xv.

Cygnus olor:—Out of a brood of four Cygnets hatched in 1868 on the Lake of Geneva, one only was of the normal brownish-grey colour, the others being pure white*: F. A. Forel, R. Z. 1869, p. 334 (extract from Bull. Soc. Vaudoise Sc. Nat. x. no. 61, 1869). Its occurrence at Malta. C. A. Wright, Ibis, 1869, pp. 248-250.

Cygnus olor and *Anser ferus* (vel *cinereus*), further notes on hybrids between them (Zool. Rec. iv. p. 121, v. p. 108). J. P. van Wickevoort-Crommelin, tom. cit. p. 127.

Cygnus. A species with red legs occurs in Northern China. A. David, N. Arch. Bull. iii. p. 41. [*Cygnus* (*Coscoroba*) *davidi*, Swinh. P. Z. S. 9 June 1870.]

Camptolemus labradorus, its disappearance of late years from part of the east coast of North America. G. A. Boardman, Am. Nat. iii. pp. 383, 384.

Anas crecca ♀ with the under surface of a brilliant crimson. A. Cretté de Palluel, R. Z. 1869, p. 128.

Anas carolinensis (?) and *A. penelope* [qu. *americana*?], description of a supposed hybrid between them obtained in California. J. G. Cooper, Proc. Calif. Acad. Sc. iv. (1868) p. 9.

Anas gracilis is described as a new species from New Zealand. W. Buller, Ibis, 1869, pp. 41, 42. Identical with *A.* (*Querquedula*) *gibberifrons*, S. Müller (Verh. Land en Volkenk. p. 159). O. Finsch, tom. cit. p. 380.

* Some years ago we were told of a very similar case which had been observed in the Zoological Garden at Amsterdam; whether the particulars are anywhere recorded we know not. It seems very likely that the supposed species *C. immutabilis*, Yarr. (P. Z. S. 1838, p. 10), has thus originated, though when once established the breed is often perpetuated, as happens with so many other white varieties of birds and beasts.

Dasfla acuta, *Histrionicus torquatus*, and *Clangula glaucion* are figured. J. Gould, B. Gr. Br. pt. xv.

Tadorna vulpanser (ad. & pull.), *Casarca rutila*, and *Fuligula marila* are figured. *Id. op. cit.* pt. xvi.

Querquedula puna is figured. P. L. Sclater & O. Salvin, Ex. Orn. p. 197, pl. xcix.

Somateria:—The common American form seems to differ from the European & *mollissima* (L.) more than do some other so-called American species of *Anatidæ*. A. Newton & H. Reeks, Zool. S. S. p. 1758, note.

Somateria v-nigrum is figured. D. G. Elliot, B. N. Am. pts. xiv., xv.

Anas rufina, its habits in semi-confinement. E. Baldamus, Zeitschr. gesamt. Naturwissensch. xxxiv. (1869) p. 154. Bred in confinement at Dresden. A. Schöpff, Zool. Garten, 1869, p. 120.

Pelionetta trowbridgii, its head figured. D. G. Elliot, B. N. Am. Intr. p. 11.

Merganetta turneri is a new species from the Peruvian Andes, differing from *M. columbiana* in its larger size and black breast and flanks, and from *M. armata* in the white edges of its scapulars and black throat and fore neck. *M. leucogneys* (Tsch.) is probably identical with *M. columbiana*. P. L. Sclater & O. Salvin, P. Z. S. 1869, pp. 600, 601. Figured, and a diagnostic list of the three species of the genus given. *Id.* Ex. Orn. pp. 199, 200, pl. c.

LARIDÆ.

Stercorarius catarrhactes is figured. D. G. Elliot, B. N. Am. pts. xiv., xv.

Bruchigavia melanorhyncha is described as a new species from the South Island of New Zealand, differing from *B. scopulina* by its black bill, dark feet, and the marking of its primaries. W. Buller, Ibis, 1869, p. 43. Possibly identical with *L. andersoni*, Bruch (J. f. O. 1853, p. 102); but if not, then a good species. O. Finsch, *tom. cit.* p. 381.

Larus glaucus and *L. glaucescens*, the tips of their primaries figured. D. G. Elliot, B. N. Am. Intr. p. 12.

Rissa tridactylus and *Hydrocoleus minutus* are figured. J. Gould, B. Gr. Br. pt. xvi.

Larus minutus, notes on its eggs and nidification in Russia, the latter from the information of Herr W. Meves. H. E. Dresser, P. Z. S. 1869, pp. 530, 531. Its frequent occurrence on the English coast in 1868-69. Zool. S. S. pp. 1495, 1518, 1563, 1603, 1803, 1908, 1921. [It has occurred in still greater abundance during the past winter, 1869-70.]

Larus atricilla, said to be a regular winter visitant at Palermo[!]. H. Saunders, Ibis, 1869, p. 396. [*L. melanocephalus* juv., T. Salvadori, Ibis, 1870, p. 153.]

Sterna, *Haliplana*, and *Anous*, their oological characters. Baron von König-Warthaussen, Ber. XVII. Versamml. D. O. G. pp. 36-39.

Haliplana discolor is figured. D. G. Elliot, B. N. Am. pt. xiii.

Sterna fuliginosa, its second recorded occurrence in England. J. E. Harting, Zool. S. S. pp. 1867, 1868.

Sterna aleutica is described and figured as a new species from Kadiak, differing so much from other species as scarcely to require a comparison, the pure white tail [taken in combination with the general slaty-blue of the

body] forming an important character. S. F. Baird, Trans. Chicago Ac. Sc. i. p. 321, pl. xxxi. fig. 1; W. H. Dall, *tom. cit.* p. 307.

Sterna forsteri, its tail figured. D. G. Elliot, B. N. Am. Intr. p. 13.

PROCELLARIIDÆ.

HUTTON, F. W. On the Mechanical Principles involved in the Sailing Flight of the Albatros. [See "GENERAL SUBJECT."]

GIGLIOLI, H. H., and SALVADORI, T. On some new *Procellariidæ* collected during a voyage round the world 1865-68, by H.I.M.'s.S. 'Magenta.' Ibis, 1869, pp. 61-68.

An English version (and the first actually printed) of the paper noticed last year (Zool. Rec. v. pp. 109, 110).

Pelecanoides berardi, Q. & G., note on. H. H. Giglioli, *tom. cit.* pp. 241, 242.

Fulmarus rodgersi, Cass. (Proc. Ac. N. S. Philad. 1862, p. 290), occurs at St. George's Island. W. H. Dall, Trans. Chicago Ac. Sc. i. p. 303. American specimen described and figured. S. F. Baird, *tom. cit.* p. 323, pl. xxxiv. fig. 1.

Thalassoica [lege *Thalassæca*] *glacialioides*, its head figured. D. G. Elliot, B. N. Am. Intr. p. 13.

Majaqueus parkinsoni (G. R. Gray, Ibis, 1862, p. 245) is fully described, with notes on other *Procellariidæ*. F. W. Hutton, Ibis, 1869, p. 351, 352.

Æstrelata [lege *Estrelata*] *gouldi* is described as a new species from the Little Barrier Island, New Zealand. It is *Pterodroma macroptera*, Gould (Handb. B. Austral. ii. p. 449) (*nec* A. Smith). *Id. loc. cit.*

Nectris tenuirostris (Temm.) has occurred at Kotzebue Sound. W. H. Dall, Trans. Chicago Ac. Sc. i. p. 303. American specimen described and figured. S. F. Baird, *tom. cit.* pp. 322, 323, pl. xxxiv. fig. 2.

Puffinus cinereus [?], its occurrence on the Devonshire coast. A. de Hügel, Zool. S. S. p. 1720.

Puffinus opisthomelas (Zool. Rec. i. p. 96), its head figured. D. G. Elliot, B. N. Am. Intr. p. 15.

Thalassidroma pelagica (ad. & pull.) and *T. leachi* are figured. J. Gould, B. Gr. Br. pt. xvi.

Thalassidroma pelagica, var. [?], "of a uniform sooty black, without white rump or white on the wings," breeds on the islands outside the Mar Menor in Murcia. H. Saunders, Ibis, 1869, p. 171.

PELECANIDÆ.

ELLIOT, D. G. A Monograph of the genus *Pelecanus*. Proc. Zool. Soc. 1869, pp. 571-591, pl. xlv.

The author's materials have been found in the collections of Philadelphia, London, and Paris. After a very extensive review of the literature relating to the genus, he gives at some length the characters of the subfamily, then an analytical table of the 9 species he recognizes, and, finally, a description of the species, which contains a full account of each, and enters largely upon

their confused nomenclature, thus forming a very excellent monograph. *P. molinae* is figured.

Pelecanus onocrotalus, its occurrence in the Pas de Calais. J. H. Gurney, Ibis, 1869, p. 463.

Pelecanus trachyrhynchus yearly sheds the bony process of its maxilla. R. Ridgway & S. F. Baird, *tom. cit.* p. 350.

Graculus bicristatus (Pall.) occurs at St. George's Island. W. H. Dall, Trans. Chicago Ac. Sc. i. p. 303. American specimen described and figured. S. F. Baird, *tom. cit.* pp. 321, 322, pl. xxxiii.

Graculus cinnamomus and *G. perspicillatus* are figured. D. G. Elliot, B. N. Am. pts. xiv., xv.

Plotus aninga, its brain commonly infested by a species of *Eustrongylus*. J. Wyman, Proc. Boston Soc. N. H. 1868; Am. Nat. iii. pp. 41, 42.

COLYMBIDÆ.

Colymbus septentrionalis, *C. glacialis*, and *C. arcticus*, notes on. H. Blake-Knox, Zool. S. S. pp. 1499-1510.

SPHENISCIDÆ.

Aptenodytes chrysocome, the destruction of it in the Crozette Islands. E. L. Layard, Ibis, 1869, p. 378.

Spheniscus undinus occurs on the New-Zealand coasts. W. Buller, Trans. & Proc. New Zeal. Inst. i. p. 112.

PODICIPIDÆ.

Podiceps cristatus, examples from the Lake of Geneva have more and whiter down than those from the other Swiss lakes. F. A. Forel, R. Z. 1869, pp. 334, 335 (extract from Bull. Soc. Vaudoise Sc. Nat. x. no. 61, 1869).

Podiceps hectori (Zool. Rec. iii. p. 115) not distinct from *P. australis*, Gould (i. e. *P. cristatus*). O. Finsch, Ibis, 1869, pp. 380, 381.

Podiceps affinis (Zool. Rec. iii. p. 115, v. p. 111), its head figured. D. G. Elliot, B. N. Am. Intr. p. 16.

Centropelma is a new genus proposed for *Podiceps micropterus* (Zool. Rec. v. p. 111), which is figured, and woodcuts of the head and tarsus added, but is not characterized formally. A synonymic and distributional list of the other four South-American species of the family is given. P. L. Sclater & O. Salvin, Ex. Orn. pp. 189, 190, pl. xcv.

ALCIDÆ.

Alca impennis, notes on [several of the statements incorrect]. J. Orton, Am. Nat. iii. pp. 539-542, fig. Note on its eggs [the number of specimens existing put at 30, which is manifestly incorrect (cf. Zool. Rec. v. p. 112; Ibis, 1870, pp. 256-261)]. E. Baldamus, *tom. cit.* p. 550. Suggested origin of the name "Penguin." A. Newton, Ann. & Mag. N. H. 4th ser. iv. p. 133. Miscellaneous notes on. J. H. Gurney, Jun., Zool. S. S. pp. 1603, 1639-1643, 1684 [several of the statements incorrect]. G. D. Rowley, *tom. cit.* p. 1645. On its former occurrence in the Newfoundland seas. H. Reeks,

tom. cit. pp. 1854–1856 [*cf. op. cit.* pp. 1982, 2065]. Its eggs in the Edinburgh Museum. H. W. Feilden, *Ibis*, 1869, pp. 358–360. Specimens in Italy. H. Saunders, *tom. cit.* p. 393; A. Newton, *loc. cit.*, note. Figured, C. J. Sundevall, *Sv. Fogl. pl. lxxvi. fig. 2.*

Alca bruenichi is figured. *Id. tab. cit. figs. 3, 4.*

Lomvia troile and *L. californica*, Bryant, the head of each figured. Regarded as identical. D. G. Elliot, *B. N. Am. Intr.* p. 18.

Uria mandti (*cf. Zool. Rec. ii. p. 137*), the original description reprinted. J. Reinhardt, *Ibis*, 1869, pp. 239–241.

Uria grylle is figured. J. Gould, *B. Gr. Br. pt. xvi.*

Simorhynchus cassini (*Zool. Rec. v. p. 112*). Note on the capture of the type-specimen. W. H. Dall, *Trans. Chicago Ac. Sc. i. p. 309*. Figured, S. F. Baird, *tom. cit. pl. xxxi. fig. 2*. Its head figured with that of *Phaleris kamtschatica*. D. G. Elliot, *B. N. Am. Intr.* p. 18.

Ceratorhina monocerata and *C. suckleyi* (ad. & juv. ?), the head of each figured. *Id. tom. cit. p. 17.*

Uria craveri (*Zool. Rec. iii. p. 115, v. p. 112*) is referred to *Brachyrhamphus*, and its head is figured. *Id. tom. cit. p. 19.*

Sagmatorhina lathamii and *Fratercula glacialis* are figured. *Id. op. cit. pts. xiv., xv.*

STRUTHIONES.

CASUARIIDÆ.

Casuarus johnsoni, its identity with *C. australis* (*Zool. Rec. iii. p. 116, iv. p. 125, v. p. 113*) still considered questionable. G. Krefft, *Ibis*, 1869, pp. 348, 349. Beautifully figured (under the name of *C. australis*), as is also *C. niappendiculatus*, Blyth. J. Gould, *B. Austral. Suppl. pt. v. (4 pls.)*.

Casuarus — ? is found on the Solomon Islands. F. W. Hutton, *Ibis*, 1869, pp. 352, 353.

DINORNITHIDÆ.

Dinornis. Remarks on the craniology of the genus, since published (1870) in the Zoological 'Transactions.' R. Owen, *P. Z. S.* 1869, p. 59.

Dasornis londinensis is the name given to a fossil cranium from the London Clay, which presents combinations of Dinornithic and modern Struthious characters. *Idem, loc. cit.*

Dinornis casuarinus, *D. didiformis*, *D. gracilis*, *D. struthioides*, *D. elephantopus*, *D. crassus*, *D. maximus*, *D. giganteus*, and *D. robustus*, and *Palapteryx ingens*, tables showing the measurements of their bones. J. Haast, *Trans. & Proc. New Zeal. Inst. i. pp. 80–89.*

Dinornis.—Remarks on the period at which the various species became extinct. W. B. Mantell, J. Hector, and W. T. L. Travers, *tom. cit. pp. 18–20*; W. Colenso, *ibid. part iii.*; Essay on Maori Races, pp. 58, 59.

Dinornis.—The structure of its egg-shell is essentially similar to that of other *Struthiones*, and agrees most nearly with *Rhea*. W. von Nathusius, *Zeitschr. wissensch. Zool. xx. p. 118.*

Dinornis.—The discovery in Australia, by Mr. W. B. Clarke, of a bone attributed to a bird of this genus, has, we are informed by Prof. Flower, been recorded; but we are unable to refer to the passage. [*Cf. Amer. Journal Sc. & Arts, March 1870, p. 273.*]

ÆPYORNITHIDÆ.

MILNE-EDWARDS, A., et GRANDIDIER, A. Nouvelles Observations sur les caractères zoologiques et les affinités naturelles de l'*Æpyornis* de Madagascar. Ann. Sc. Nat. 5e sér. xii. pp. 167-196, pls. 6-16. Abstract, Comptes Rendus, lxi. pp. 801-805. Translated, Ann. & Mag. N. H. 4th ser. iv. pp. 437, 438.

After a concise abstract of what had previously been known on the subject, the authors proceed to describe, in great detail, the remains recently sent to Paris (Zool. Rec. v. p. 113), namely :— a perfect tibia and some fragments of another, a nearly perfect femur, and two detached vertebræ of *Æ. maximus*; a nearly entire femur and some fragments of a smaller species, called *Æ. medius*; and a very imperfect femur of a third species, smaller still, named *Æ. modestus*. They consider *Æpyornis* to be the type of a family quite distinct from the other *Struthiones*, and that it probably lived after Madagascar was inhabited by man. The remains of the two larger species are beautifully figured, of the natural size.

APTERYGIDÆ.

Apteryx oweni in confinement. P. L. Selater, P. Z. S. 1869, p. 468.

Apteryx, in the structure of its egg-shell, does not much agree with other *Struthiones*. W. von Nathusius, Zeitschr. wissenschaft. Zool. xx. p. 128.



